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ABSTRACT

Instructional media appropriate to school science programs are presented with critical annotations. Entries were selected from materials submitted by publishers which received favorable reviews by educators. Materials are arranged by type of media: books, calendars, duplicating masters, 16mm films, filmstrips, kits, and tests. Entries include publisher and publication date or production date, cost, and grade level. (Author/BK)

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# ADVISORY LIST OF INSTRUCTIONAL MEDIA

# FOR SCIENCE

State Department of Public Instruction
Division of Educational Media
Raleigh, North Carolina
1979-80

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Materials Review and Evaluation Services
Division of Educational Media
State Department of Public Instruction

Raleigh, North Carolina
1979-1980 School Year

# ADVISORY LIST OF INSTRUCTIONAL MEDIA

# FOR

# SCIENCE

This bibliography includes instructional materials appropriate to the Science program in the schools. The items are listed by type of media. The order of the listing is as follows:

- activity cards
- art prints
- books
- books (for teacher use)
- books (reference)
- books (supplementary texts)
- books with recordings
- books (workbooks)
- books (workbooks) with recordings
- calendars
- charts
- dictionaries
- duplicating masters
- film loops (silent)
- film loops (sound)
- films (16mm)
- filmstrips (silent)
- filmstrips (sound)
- games
- globes
- kits
- manipulative devices
- maps
- measuring tapes
- microforms
- mini-units
- models
- periodicals
- pictures
- posters
- programmed materials
- puzzles
- realia
- recordings (cassette tapes)
- recordings (disc)
- recordings (reel-to-reel tapes)
- reprints
- shortstrips
- slide sets (2"x2")
- slide sets (sound)
- study prints
- tests
- transparencies
- videotapes

Materials on this list were selected from those which publishers have submitted for evaluation. Educators may assume that materials available for purchase not appearing on this list either were not submitted or were considered inappropriate for school purchase. All items included on this bibliography except 16mm films, and some items suggested for inclusion by local school administrative units, are displayed in the Center in Raleigh. The name of a school administrative unit appearing after an annotation indicates that educators in that system reviewed and recommended the item.

At the end of the annotated lists of print and audiovisual materials may be found unannotated lists of materials which have had favorable reviews in other reliable reviewing sources. Additional information may be obtained by writing or calling the Materials Review and Evaluation Center.

In some cases prices were not available. Prices shown are those quoted by publishers and producers, but do not include postage and are subject to change.

PLEASE DO NOT ORDER ITEMS ON THIS LIST FROM THE MATERIALS REVIEW AND EVALUATION CENTER OR FROM THE DIVISION OF TEXTBOOKS. Publishers and producers are listed in a separate directory accompanying the complete set of ADVISORY LISTS OF INSTRUCTIONAL MEDIA. An abbreviated or code name for the publisher/producer appearing in the bibliographic entry on this list appears in the DIRECTORY, where the complete address follows the code name.

*Schools may use this list to aid in selection of materials but are in no way restricted to purchasing items on this list.*

JUN 1 3 1980

## ACTIVITY CARDS

MIND EXPANDERS. 80 activity cards with 6 tab dividers. Described on Reading Advisory List

## BOOKS

Adkins, Jan. WOODEN SHIP. Houghton, 1978. 47 p. $6.95. Grades 6-10

Intriguing book about the building of *ULYSSES*, a New England whaling vessel; narrative traces, describes ship's construction from inception to first sailing; each step illustrated and highlighted by detailed line drawings; well-written story smoothly guides reader from keel-laying to outfitting (Cumberland County)

Adler, David A. REDWOODS ARE THE TALLEST TREES IN THE WORLD. Crowell, 1978. 33 p. $5.79. Grades 2-4

Basic factual description of the redwood tree, tallest living thing in the world, provided by a precocious child who has visited California and heard a park ranger's explanation; occasional use of sophisticated terminology, metric and customary units of measurement; profusely illustrated in simple, two-color illustrations

Adrian, Mary. WILDLIFE IN THE ANTARCTIC. Messner, 1978. 64 p. $6.97. Grades 4-6

Introduces child to wildlife of Antarctica through story of one penguin and weaves in a little adventure involving wide variety of other animals; food chain illustrated with accounts of predators and prey; italicized scientific words used in sentences and listed in glossary; black-and-white drawings on every page (Wake County)

Allamand, Pascale. COCOA BEANS AND DAISIES: HOW SWISS CHOCOLATE IS MADE. Warne, 1978. unp. $6.95. Grades 1-3

Easily read text traces development of Swiss chocolate from bean in Africa and daisy eaten by cow in Switzerland to final product; author attempts to demonstrate relationships of bean and milk to chocolate by paralleling their processing (we follow production of cocoa on left page and milk on right--a format which may confuse some younsters); recipes for chocolate cake and candy included; illustrated with chocolate brown and white photographs (Wake County)

Allen, Martha Dickson. REAL LIFE MONSTERS. Prentice, 1978. 58 p. $5.95. Grades 4-8

Appealing subject matter examines some tales, accounts associated with the Loch Ness Monster, Abominable Snowman, Bigfoot, gorillas, giant squids, Komodo Dragon; some details and specifics of each specimen are given, but accounts are brief, often sketchy; sure to be popular with young readers; short chapters and easy reading style, but few illustrations; related reading list included (Alamance County)

Allison, Linda. THE WILD INSIDE: SIERRA CLUB'S GUIDE TO THE GREAT INDOORS. Sierra/Scribners, 1979. 144 p. $9.95. Grades 5-8

Introduction to amazing physical and biological wildlife found in and around average home; enthusiastic approach to science around the home covers physics, biology, electricity, weather; outlines experiments for young readers; numerous excellent black ink drawings; for all students in middle school (Wilkes County)

Amon, Aline. ORANGUTAN: ENDANGERED APE. Atheneum, 1977. 163 p. $7.95. Grades 7-12

Detailed book on orangutans uniquely presented: alternate chapters of selections and facts; book deals with history of these apes from prehistoric times to present, giving beliefs and myths as well as living habits (eating, mating, captivity), their

ORANGUTAN: ENDANGERED APE. (Cont'd.)

problems of survival today; allied reading with units on lifestyles and behavior of animals; black-and-white photographs, bibliography, index (Camp Lejeune)

Amon, Aline. ROADRUNNERS AND OTHER CUCKOOS. Atheneum, 1978. 87 p. $7.95. Grades 4-10

Entertaining narration about different species of birds in cuckoo family; even though members of this group exist in various countries of world, roadrunner is most familiar to people in United States; easy-to-read, detailed, instructive stories describe behavior, habitat, characteristics of these interesting birds; accompanying black-and-white illustrations clearly depict text; appendix includes helpful classification/characteristics chart, bibliography, index; literary references to cuckoos give added dimension to book's usefulness

Anderson, Lucia. THE SMALLEST LIFE AROUND US. Crown, 1978. unp. $7.95. Grades K-6

Unusual book on bacteriology for elementary children which gives good basic information with some historical background; suggested activities appropriate for children at home or school use easily found materials; well-planned, color illustrations illuminate and expand text (Wake County)

Annixter, Jane and Paul. BROWN RATS, BLACK RATS. Prentice, 1977. unp. $6.95. Grades 3-6

Twelve brief chapters detail essential habits and history of rats with emphasis on their anti-social behavior and survival capacity, but with due credit to their cunning; murky, full-page illustrations overlayed with black print underscore ominous tone of text (Camp Lejeune)

Annixter, Jane and Paul. THE YEAR OF THE SHE-GRIZZLY. Coward, 1978. 68 p. $5.95. Grades 4-6

Engrossing narrative recounts year in the life of Banska, a grizzly in Montana; begins with her preparations for winter, birth of her cub; portrays mother's love for cub and her constant guarding against ever-present dangers, including skunks, porcupines, wolverines, man; author scrutinizes hibernation, eating habits, strength of this often misunderstood animal; excellent for teacher to share with class, for independent reading; several black-and-white illustrations enhance informative, entertaining book (Wake County)

Arnosky, Jim. CRINKLEROOT'S BOOK OF ANIMAL TRACKS AND WILDLIFE SIGNS. Putnam, 1979. unp. $7.95. Grades 3-5

Crinkleroot, grandfatherly nature detective, guides novices through woods, past water and through snow, indicating clues for animal identification; accurate facts in simple text and charts; questions direct readers to diagrams and sketches to search for answers, to sharpen observation skills (e.g., find number of baby raccoons by reading tracks); useful for browsing or small group instruction; reading skills stressed include chart reading, following directions, comparison/contrast (Wake County)

Asimov, Isaac. HOW DID WE FIND OUT ABOUT BLACK HOLES? Walker & Co., 1978. 64 p. $6.85. Grades 6-12

In his usual exciting and lucid style, Dr. Asimov explains sequence of ideas and discoveries leading to concept of black holes; beginning with white dwarfs, he proceeds through pulsars and neutron stars to ideas about gravitation and total collapse of matter leading to formation of black holes; ideas developed with clarity that leads readers easily from idea to idea in order to maintain high level of interest; indexed and illustrated (Cumberland County)

Asimov, Isaac. HOW DID WE FIND OUT ABOUT EARTHQUAKES? Walker & Co., 1978. 58 p. $5.85. Grades 6-10

Fast-moving account of history of study of earthquakes; technical terms, such as "epicenter" and "tectonic," are integral to text, as are foreign names, such as "Mohorovicic" and "Poseidon"; however, reader is given inoffensive assistance via phonetic spellings; text includes discussions of ancient beliefs, observations of, improved protection from earthquakes; simply written with clear examples and illustrations (Shelby City)

Asimov, Isaac. HOW DID WE FIND OUT ABOUT OUR HUMAN ROOTS?. Walker & Co., 1979. 57 p. $6.85. Grades 4-8

Beginning with explanation of how paleontologists have traced roots of mankind, Asimov easily moves into descriptions of individual classes of homonids (Cro-Magnon, Neanderthal, Java); gives scientific background of search for "missing link"; simple, clear language maintains student interest in this continuing scientific mystery; a few appropriate black-and-white illustrations; pronunciation given for unfamiliar names and words; indexed (Wilkes County)

Asimov, Isaac. MARS, THE RED PLANET. Lothrop, 1977. 222 p. $7.35. Grades 8-12

Informative addition to Isaac Asimov's continuing series of books on astronomy; writing in his usual flowing, conversational style, Asimov discusses motions, distance, size, rotation, satellites, mass of Mars; final chapters consider maps, canals in the planet, discoveries of Mariner and Viking space probes; numerous tables, charts, simple line drawings compensate for lack of photographs; provides complete, reliable source of information about our neighbor in space (Cumberland County)

Asimov, Isaac. SATURN AND BEYOND. Lothrop, 1979. 222 p. $7.63. Grades 8-12

Writing in his usual fluid style, Asimov takes the reader out through the solar system to Saturn; history of the planet's discovery is followed by descriptions of the planet's motions, character, rings, moons; although written before the most recent discoveries by deep space probes, text provides solid base of information for beginning students; in closing chapters Asimov continues outward through the solar system, looking in turn at asteroids, Uranus, Neptune, Pluto; illustrated mainly with line drawings (Cumberland County)

Ault, Phil. BY THE SEAT OF THEIR PANTS: THE STORY OF EARLY AVIATION. Dodd, 1978. 213 p. $6.95. Grades 6-12

History of aviation with emphasis on contributions of individual newsmakers, including famous women, barnstormers, transoceanic flyers; each story told with high suspense and humor; useful for both historical and biographical studies; contains bibliography, index, many black-and-white illustrations (Wilkes County)

Baker, Bill. HOW TO BEAT THE ENERGY CRISIS AND STILL LIVE IN STYLE. Putnam, 1979. 207 p. $12.95. $6.95 paper. Grades 7-12

Excellent book for student interested in practical aspects of energy conservation at home; well written and illustrated with charts, diagrams, photographs; units cover preventing heat loss, heating, cooling, fireplaces, ventilation, lighting, solar energy, wood burning heaters; highly recommended as a basic part of every school's energy library; no index (Cumberland County)

BASIC GUIDE TO HELICOPTERS. Drake, 1978. 105 p. $5.95 paper. Grades 11-12

FAA manual for advanced pilots preparing for helicopter ratings; does not include basic flight topics covered in other FAA manuals--such as navigation, communication, weather; additional pertinent manuals listed (Cumberland County)

Batherman, Muriel. ANIMALS LIVE HERE. Greenwillow, 1979. 35 p. $5.71. Grades K-2

Well-organized description of animal homes of tree dwellers, ground level animals, and burrowers; includes reasons for styles of construction; some concepts (mound, litter, hinge) may need explanation; details presented on beginning reading level with suitable print; illustrations lack satisfactory color and detail (Wake County)

Bechtel, Helmut. CACTUS IDENTIFIER, INCLUDING SUCCULENT PLANTS. Sterling, 1977. 256 p. $4.89. Grades 7-12

Small, compact pocket guide to the family of cacti and some succulents; first section on care, soil, watering, containers, diseases; scientific name, family and subfamily given along with a descriptive paragraph of each plant; popular names given in most cases; excellent color plates primarily an aid in identification, not botanically explicit; excellent guide for the home grower (Camp Lejeune)

Behrens, June. WHALEWATCH! Childrens, 1978. 31 p. $5.50. Grades 2-5

Excellent, factual book about children on a "whalewatch" to observe California gray whale; well illustrated with color photographs of whale behavior; interesting reading with numerous terms presented in easy-to-understand fashion; useful for enrichment or basic study on elementary level (Alamance County)

Bendick, Jeanne. PUTTING THE SUN TO WORK. Garrard, 1979. 64 p. $4.74. Grades 3-4

Effective use of solar energy described via familiar examples (plant growth, clothes drying); fossil fuels defined and solar energy evaluated as possible solution to attendant problems; examples given of ancient, modern methods of collection and use; informative charts and diagrams; easily performed experiments; superb definitions of new vocabulary and concepts; clear print, table of contents, and index encourage independent use (Wake County)

Bergaust, Erik. COLONIZING SPACE. Putnam, 1978. 62 p. $4.96. Grades 6-10

Informative discussion of colonizing near-earth space, using today's technology; actual plans shown with explanations of possible functions of currently feasible space stations; needs and advantages of colonization are based on latest serious thinking of space engineers, scientists; captivating text accompanied by numerous black-and-white illustrations, most provided by NASA (Wilkes County)

Berger, Gilda. THE CORAL REEF: WHAT LIVES THERE. Coward, 1977. 31 p. $5.29. Grades 4-6

Presents the many beautiful, dangerous plants and animals that make up and live within a coral reef; explains how each depends on the other for existence; describes shrimp, blowfish, coral polyps, sea anemone; well organized, clearly written; two-color, pen-and-ink drawings are well done, but lack expected vibrancy; glossary (Alexander County)

Berger, Gilda. MOUNTAIN WORLDS: WHAT LIVES THERE. Coward, 1978. 31 p. $5.89. Grades 4-6

Readers make an imaginary climb up a mountain in North America, passing through differing climate zones and observing effect of altitude on trees, plants, soil, animal life; abundance of well-labeled illustrations in muted colors; short introduction, index, suggested books for further reading; practical for research or introduction to subject (Caldwell County)

Berger, Melvin. BIONICS. Watts, 1978. 82 p. $4.90. Grades 7-10

Discussion of design, operation, application of various types of artificial limbs, eyes, kidneys, hearts, other bionic devices beneficial to man; while not a comprehensive manual, this should broaden reader's knowledge of these devices in a general way; well illustrated with black-and-white photographs that show benefits of bionic devices when applied to man (Cumberland County)

Berger, Melvin. DISEASE DETECTIVES. Crowell, 1978. 87 p. $6.79. Grades 6-9

Step-by-step account of intensive investigation by Center for Disease Control to find cause of mysterious Legionnaires' disease; each chapter deals with a specific phase of investigation; interesting, informative text, accompanied by black-and-white photographs, gives insight into procedure used by Center in investigating all situations, such as the one that occurred in Philadelphia in 1976 (Caldwell County)

Berger, Melvin. JIGSAW CONTINENTS. Coward, 1977. 47 p. $4.97. Grades 1-6

Finally, an introductory easy-to-read text on theory of continental drift; aptly titled book discusses how continents apparently fit together, how they probably broke apart to form continents of today; only technical phrase used, "plate tectonics," explains how continents move, earthquakes occur, mountains form--author does not list other proofs of this widely accepted theory; drawings well illustrate ideas without being too technical (Camp Lejeune)

Berger, Melvin. PLANET, STARS, AND GALAXIES. Putnam, 1978. 64 p. $5.69. Grades 4-8

Basic, readable introduction to astronomy using sequential and conversational approach; illustrated throughout with numerous black-and-white photographs; relatively up-to-date discoveries, as recent as 1977, included; glossary (Cumberland County)

Berger, Melvin. QUASARS, PULSARS, AND BLACK HOLES IN SPACE. Putnam, 1977. 64 p. $5.29. Grades 6-10

Discusses theories and research surrounding phenomena discovered since 1960 which have revolutionized ideas about our universe; explains advances made by radio telescope, spectroscopes; black-and-white photos show quasars, red shift spectrum; diagrams explain expanding universe theory; scientifically sound prose includes clarifying analogy between expanding universe and rising loaf of raisin bread; suitable for reference, independent reading, or class use (Camp Lejeune)

Billings, Charlene W. SPRING PEEPERS ARE CALLING. Dodd, 1978. 31 p. $4.95. Grades 3-5

Traces development of spring peepers (tree frogs) from conception to adult life, noting life processes and dangers; second section, devoted to spring peepers as pets, detailed enough for middle grade child to follow successfully; black-and-white illustrations; accurate information for research, but style hardly entertaining enough for general reading (Wake County)

Bonners, Susan. PANDA. Delacorte, 1978. unp. $6.46. Grades K-5

Set in southwest China, soft, fuzzy, white-and-blue illustrations evoke winter wonderland in which a baby panda is born, matures, mates; authentic details given in brief, simple text and beautiful pictures (Caldwell County)

Brady, Irene. ELEPHANTS ON THE BEACH. Scribners, 1979. unp. $7.95. Grades 2-4

Diary comments and sketches of day's expedition on lonely California beach present facts about elephant seal in entertaining, conversational tone; anatomical features, movement on land explained in somewhat advanced vocabulary for employed picture-book style--e.g., "parasites," "lurch," "agile"; unusual, appealing format reproduces pages torn from sketch book (Wake County)

Branley, Franklyn M. COLOR: FROM RAINBOWS TO LASERS. Crowell, 1978. 87 p. $8.79. Grades 6-9

Well-organized overview of light theory presents simple explanations of such light phenomena as rainbows, blue seas, oil films, eye color; excellent line drawings illustrate the discussion, while numerous color illustrations supplement those sections requiring color to increase reader's understanding; interesting consideration of the psychological effect of color on human behavior; short reading list, index will encourage use of this book for research, reports

Branley, Franklyn M. THE NINE PLANETS. Rev. ed. Crowell, 1978. 99 p. $8.79. Grades 6-9

Technical approach to solar system with family of planets treated as a whole; separate chapters, devoted to each planet, describe physical characteristics and relevant anecdotes; last chapter devoted to theory that two other planets possibly exist in our solar system; liberally illustrated with black-and-white drawings by Helmut K. Wimmer; excellent reference material (Wilkes County)

Brewer, Stella. THE CHIMPS OF MT. ASSERIK. Knopf, 1978. 302 p. $10.95. Grades 9-12

Excellent personal account detailing author's expertise in rescuing, rehabilitating, releasing chimpanzees to live successfully in wild; pursuing her personal resolve, she rescues captive chimps and trains them for survival on Mt. Asserik in Senegal; vivid in detail and showing her deep concerns, book is comparable in style to work of Joy Adamson or Jane Goodall; black-and-white photographs, maps (Wilkes County)

Brown, Joseph E., and Anne Ensign Brown. HARNESS THE WIND: THE STORY OF WINDMILLS. Dodd, 1977. 109 p. $5.95. Grades 4-10

Twelve hundred years of windmill history traced in detail, plus designs, uses, potentials of wind-powered machines; barrage of facts sometimes overwhelming; best used for reference; black-and-white photographs depict windmills from many lands, but overall presentation is dry; nonetheless, information is interesting and unusual (ASU)

Brown, Louise C. ELEPHANT SEALS. Dodd, 1979. 43 p. $4.95. Grades 3-5

Factual account of elephant seals includes size, anatomy, mating habits, molting process, weaning of young; impact of conservation illustrated by enormous increase of herd in 70 years of Mexican government protection; fluid text contains excellent descriptive passages giving details interesting to children; numerous black-and-white photographs and drawings, index (Wake County)

Buckwalter, Len. BEGINNER'S GUIDE TO HAM RADIO. Dolphin, 1978. 145 p. $4.95 paper. Grades 7-12

Excellent introduction to ham radioing for neophyte; provides answers to all questions new convert would probably want to ask; tells how ham radio fans come to be and who some of them are--e.g., Barry Goldwater; complete Morse Code is included, along with why, when, and how it is used; gives procedures for becoming licensed, upgrading license; adequate detail given on how to put together a rig;

BEGINNER'S GUIDE TO HAM RADIO. (Cont'd.)

profusely illustrated with black-and-white photographs, diagrams; FCC Rules and Regulations included (copying of this section is permitted); slightly larger than average paperback format (Wilkes County)

Buckwalter, Len. THE COMPLETE CB RADIO HANDBOOK. Crowell, 1977. 263 p. $9.95. Grades 6-12

Detailed information about operating, constructing, maintaining, repairing transceivers; additional chapters on licensing, federal rules and regulations, lingo; black-and-white photographs and diagrams (Wilkes County)

Burstein, John. SLIM GOODBODY: WHAT CAN GO WRONG AND HOW TO BE STRONG. McGraw, 1978. 48 p. $6.95. Grades 3-6

Relies heavily on interest-grabbing drawings coupled with mime-like photographs to transmit common sense ideas about hygiene, health; almost all commonly contracted diseases and health problems, even problems of being handicapped, treated in one-page scenarios which move reader rapidly from one idea to next (Cumberland County)

Burt, Olive W. BLACK SUNSHINE: THE STORY OF COAL. Messner, 1977. 64 p. $6.64. Grades 3-6

Brief, informative examination of the formation, uses, mining of coal; emphasizes improvements of miners' working conditions and world's dependence on this mineral; readable print, many black-and-white photographs, concise glossary, and index contribute to this thin book's appeal, usefulness

Busch, Phyllis S. CACTUS IN THE DESERT. Crowell, 1979. 34 p. $6.89. Grades 3-4

Introduces reader to cacti variations and adaptive characteristics; coordination of text and illustrations especially apt when demonstrating size, uses, comparisons of different varieties; clear, brief text provides basic facts in straightforward manner; alternating black-and-white, color illustrations conscientiously and naturally integrated (Wake County)

Caputo, Robert, and Miriam Hsia. HYENA DAY. Coward, 1978. 47 p. $7.95. Grades 6-10

Factual natural history of the hyena is serious study of this usually despised animal; giving insight into this singular species should eliminate some distasteful notions; well documented with graphic black-and-white photographs; simple sentence structure belies advanced vocabulary (Camp Lejeune)

Carrick, Carol. OCTOPUS. Seabury, 1978. unp. $6.95. Grades 3-6

Eerie, gruesome, yet factual account of female octopus' hunting for food, being pursued, mating, laying eggs, protecting eggs until they hatch, ultimately herself dying; story form recounts coloration changes, protective devices octopus uses; muted tone drawings illustrate story rather than provide precise scientific details

Cavagnaro, David, and Maggie Cavagnaro. THE PUMPKIN PEOPLE. Sierra/Scribners, 1979. 32 p. $8.95. Grades K-3

Depicts life cycle of pumpkin people from planting of seed, through growth and harvest, to traditional carving of jack-o-lantern; cycle is renewed with sprouting of seed atop compost pile; exquisite, vibrant photographs accompany text of somewhat advanced vocabulary (Wake County)

Chandler, David L. LIFE ON MARS. Dutton, 1979. 212 p. $9.95. Grades 9-12

Excellent account of current theories and facts concerning possibilities of life on Mars following Viking Martian probe; details of Viking experiments and results, along with numerous photographs from mission; author points to Viking results to support his hypothesis that life may exist or have existed on Mars; interesting reading, even for one with no scientific background; well documented; excellent bibliography (Alamance County)

Cherrier, Francois. Translated from the French by E. W. Egan. FASCINATING EXPERIMENTS IN CHEMISTRY. Sterling, 1978. 96 p. $8.29. Grades 4-11

Unusually well-illustrated guide for beginners in chemistry; begins with instructions for building simple equipment and directions for obtaining basic supplies; following chapters devoted to specific experiments which are basically safe, but may require supervision; clear directions use metric measurements; prolific use of color diagrams and photographs makes book interesting and easy to comprehend (Cumberland County)

Cherrier, Francois. Translated from the French by E. W. Egan. FASCINATING EXPERIMENTS IN PHYSICS. Sterling, 1978. 96 p. $8.29. Grades 3-12

Intriguing collection of physics devices and demonstrations which might be built by upper elementary and junior high students; theory varies from extremely simple to college level complexity; demonstrations of magnets, fluids, mirrors, forces, light, sound, heat are illustrated with color diagrams, photographs and are explained in simple text; however, complexity of explanation must be varied by teacher to suit audience (Cumberland County)

Chester, Michael. LET'S GO TO A RECYCLING CENTER. Putnam, 1977. 47 p. $3.86. Grades 2-6

Kathy becomes interested in ecology after trip to the country in which she sees trash lying on the ground; she tours neighboring recycling plant, views plant operation, learns procedure for separating cans, glass, paper; slightly boring, but does inform about recycling; simple brown, black-and-white pencil drawings (ASU)

Chester, Michael. PARTICLES: AN INTRODUCTION TO PARTICLE PHYSICS. Macmillan, 1978. 154 p. $8.95. Grades 9-12

Lucid explanation in effectively divided chapters of man's discovery and research of atomic particles; beginning with Thales' ideas about electricity in 600 B.C. and Democritus' theory about atoms 140 years later, text moves to description of basic elements, a knowledge of which provides background for understanding more exotic forms of neutrons, positrons, quarks, others; convenient introduction, overview of particle physics

Clay, Patricia A. YOUR OWN HORSE: A BEGINNER'S GUIDE TO HORSE CARE. Putnam, 1977. 127 p. $6.95. Grades 5-8

A guide for those who love and want to own horses; includes tips on buying, stabling, caring for, grooming horse; describes equipment, diseases; author's biases, such as preference for thoroughbreds over other types of horses, are evident; for intermediate or advanced horse enthusiasts; to supplement established horse care collection (ASU)

Cleminshaw, Clarence H. THE BEGINNER'S GUIDE TO THE SKIES: A MONTH-BY-MONTH HANDBOOK FOR STARGAZERS AND PLANET WATCHERS. Crowell, 1977. 152 p. $7.95. Grades 8-12

Excellent handbook for beginning amateur astronomer; using numerous charts, author explains concise methods for locating stars, provides star maps of 24 common skies; motions of planets, paths of sun and moon also clearly explained; unusually useful diagrams, coupled with clear and concise text, make this book equally suited for use as text as for individual use (Cumberland County)

Coburn, Doris. A SPIT IS A PIECE OF LAND: LANDFORMS IN THE U.S.A. Messner, 1978. 127 p. $7.79. Grades 5-8

Book focuses on geography of U.S.A.: coasts, lowlands, highlands, valleys, islands, caverns, glaciers, deserts; from its introduction, in which land forms are compared to facial features, through each of its topics, a distinct line of comparing geographic and human life stages is evident; tone of language, almost textbookish, is suitable approach to this subject; appropriate as an authoritative, yet understandable resource; superbly indexed; many clear black-and-white photos (Shelby City)

Cohen, Daniel. WHAT REALLY HAPPENED TO THE DINOSAURS? Dutton, 1977. 70 p. $7.50. Grades 6-10

Scientifically examines both strengths and weaknesses of several theories on the extinction of dinosaurs; accurate scientific information presented in concise, logical sequence; black-and-white drawings seem to illustrate nothing, but text does serve as an update to older books on same subject; suggested readings and brief, but functional, index provided

Cohen, Daniel. WHAT'S HAPPENING TO OUR WEATHER? Evans, 1979. 154 p. $6.95. Grades 7-12

Excellent look at weather, climactic changes, effects these changes have produced on man's life and culture; also deals with beginnings of meteorology, climatology and offers look at how man can and is now affecting future climate conditions; valid information, high-interest reading; useful in association with geology or meteorology studies; some black-and-white photographs; selected bibliography index (Alamance County)

Cole, Joanna. SABER-TOOTHED TIGER AND OTHER ICE AGE MAMMALS. Morrow, 1977. 48 p. $6.43. Grades 1-4

Informative discussion of Ice Age clearly and simply describes the emergence of this age, the behavior and characteristics of the mammals which inhabited the earth at this time; elementary, almost stilted, style provides easy reading; numerous illustrations in shades of gray are distinct, but lifeless

Collier, James Lincoln. CB. Watts, 1977. 59 p. $4.47. Grades 7-12

Citizen Band radios discussed as valuable law enforcement, social, emergency tool; equipment, history, rules for operation given in this basic, clearly written primer, though 40-channel sets are not mentioned and instructions for use are limited; truckers slang and "ten" codes included; half of the few black-and-white illustrations are cartoons (ASU)

Comstock, Anna Botsford. WAYS OF THE SIX-FOOTED. Cornell U. Pr., 1977. 152 p. $5.95. Grades 7-12

Reissue of an engaging book first published in 1903; graceful narrative style accurately describes natural history, behavior of such insects as ants, butterflies, WAYS OF THE SIX-FOOTED. (Cont'd.)

cicadas, wasps; black-and-white photographs and drawings delicately illustrate the unusual text, which may be more significant for its personal descriptions of nature than for its factual information

Conklin, Gladys. BLACK WIDOW SPIDER--DANGER! Holiday, 1979. unp. $4.95. Grades K-3

Short account of year-long life cycle of black widow spider includes molting, mating, death; accurate, but limited information; attractive black-and-white pencil drawings; introduction, which seems to be for adults, includes short bibliography on spiders (Wake County)

Conklin, Gladys. I WATCH FLIES. Holiday, 1977. unp. $6.95. Grades 1-3

Although not content-oriented, book invites students to use their observation skills in watching and identifying 27 types of flies, from the housefly to the dance fly that blows balloons; excellent colored drawings aid in identification of various species; can be used as a non-technical guide for identification (Camp Lejeune)

Conklin, Gladys. PRAYING MANTIS: THE GARDEN DINOSAUR. Holiday, 1978. unp. $4.95. Grades 2-6

Simplified, narrative account of habits and life cycle of praying mantis; covers egg case, hatching of young, catching food, skin splitting, wing formation; differentiates male and female; well illustrated with black-and-white drawings by Glen Rounds; useful for science projects and for young children who may want to raise a praying mantis pet (Wilkes County)

Cook, Joseph J., and William L. Wisner. COASTAL FISHING FOR BEGINNERS. Dodd, 1977. 125 p. $5.95. Grades 4-12

Basic introduction to coastal fishing in which early chapters are devoted to safety tackle, rigging, fishing methods; remainder of book describes 28 species of fish with discussions of feeding habits, proven fishing techniques for each; simple writing with numerous diagrams, black-and-white sketches (no color) (Cumberland County)

Coonley, Douglas R. WIND: MAKING IT WORK FOR YOU. Franklin Inst. Pr., 1979. 99 p. $7.95 paper. Grades 10-12

Somewhat technical account of wind behavior and its effects; special attention to design of active and passive wind systems, technical information and mathematical formulas used in necessary calculations; hand-drawn illustrations, graphs are often difficult to understand; suggested projects, experiments range from pin wheels to waterpumps; current bibliography (Alamance County)

Cooper, Gale. INSIDE ANIMALS. Little, 1978. 64 p. $5.95. Grades 6-10

Well-drawn, well-labeled anatomies of interesting animals from amoeba to guinea pig and interesting parts of others--e.g., kangaroo's pouch, bee's stinger, snake's fangs; many terms explained either in scant text or on pictures, but not all; therefore, reader must have some knowledge of terms; text print looks like "easy book," but book could also be used by interested middle graders; pregnant guinea pig and baby guinea pigs attached to placenta may be more than some elementary libraries would want; organized table of contents, useful index (Caldwell County)

Cooper, Henry S. F., Jr. A HOUSE IN SPACE. Bantam, 1976. 183 p. $1.95 paper. Grades 8-12

Informal, almost casual, account of Skylab's venture into space from the astronauts' point of view; daily experiments are explained in detail, but not in esoteric, technical terms; actual conversations, black-and-white photographs, illustrations contribute to "you-are-there" effect; for pleasure or instruction

Corbett, Scott. BRIDGES. Four Winds, 1978. 122 p. $6.95. Grades 7-12

Chronological development of bridges, beginning with the first structures built by man; provides interesting accounts of specific structures, including Roman bridges, London Bridge, Brooklyn Bridge, Golden Gate; traces types of construction along with history of bridge building techniques; illustrated with delicate pen-and-ink drawings of the bridges (Camp Lejeune)

Couffer, Jack and Mike. SALT MARSH SUMMER. Putnam, 1978. 91 p. $6.95. Grades 7-12

Series of stories each of which provides a small picture of life in a salt marsh; adventure of growing up near the sea, behavior of thoughtless citizens, life of typical marsh animals create a composite image of different styles, thereby indicating father's or son's conversational, often suspenseful narratives; black-and-white photographs help maintain high interest level; most enjoyable addition to ecology literature (Cumberland County)

Couper, Heather, and Nigel Henbest. SPACE FRONTIERS. Viking, 1978. 61 p. $5.95. Grades 4-9

Elemental introduction to astronomy and astronautics; plethora of topics covered, including space flight, planets, stars, galaxies, optical astronomy; relies heavily on color photographs, diagrams to convey ideas, thereby using a minimum of text; explanatory block notes accompanying diagrams allow slower readers to understand some rather complex ideas; suggestions for projects interweaved with information; index and glossary (Cumberland County)

Craig, M. Jean. LITTLE MONSTERS. Dial, 1977. 38 p. $6.29. Grades K-4

Spotlights 18 creatures whose small size often leaves them overlooked and whose appearance is outrageous, frightening, or beastly; each "monster" shown in clear, full-page photograph (though only every other one is in color) with brief explanation of its eating and living habits, description of its physical characteristics; some creatures easily found in other books; textual information is unoriginal, but interesting (ASU)

Crook, Beverly Courtney. INVITE A BIRD TO DINNER: SIMPLE FEEDERS YOU CAN MAKE. Lothrop, 1978. 63 p. $5.71. Grades 4-5

Highly entertaining book emphasizes safety for reader and bird as it introduces reasons for feeding birds, types of feeders, menus, recipes; clear instructions supplemented by clever, humorous illustrations provide exact directions; scholarly owl sporadically provides extraneous, factual tidbits; list of bird guides also notes those which are easy to read (Wake County)

Curren, Polly. I KNOW AN ELECTRICIAN. Putnam, 1977. 47 p. $3.99. Grades 2-5

When a little girl's mother has trouble with a fuse, Mr. George, the electrician, comes with his helper to repair the problem, explain elementary electrical facts to the child; the how-to's of household electricity for young readers, done in storybook format with illustrations; simple introduction to amps, volts, circuit breakers, fuse box, transformers

Daly, Kathleen N. A CHILD'S BOOK OF BIRDS. Doubleday, 1977. 43 p. $5.90. Grades 1-5

Excellent, small-sized guide to some well-known birds; author has an enthusiastic approach to these feathered friends, what they do and what they eat; well-done illustrations give excellent aid to identification; suggested as guide, not definitive source; no pronunciation guide given for Latin names listed in index (Camp Lejeune)

Daly, Kathleen N. A CHILD'S BOOK OF INSECTS. Doubleday, 1977. 44 p. $5.90. Grades 1-5

Fair little identification guide to some representative insects of United States; beautifully colored illustrations lend more to easy recognition than fuzzy black-and-white drawings; useful as an occasional guide but amount of information about each species is inconsistent and unpredictable; Latin names given in index without pronunciation guide (Camp Lejeune)

Davies, Paul. THE RUNAWAY UNIVERSE. Harper, 1978. 205 p. $10. Grades 11-12

Here is an explanation of modern theories of cosmology without complex equations and formulas that underlie and support them; theories dealing with origin and future of the universe, life histories of stars, black holes, all discussed in basic logical terms; excellent addition to comprehensive science collection; not for beginners (Cumberland County)

Davis, Barbara. LEARNING SCIENCE AND METRIC THROUGH COOKING. Rev. ed. Sterling, 1977. 98 p. $4.99. Grades K-12

Even experienced cooks might learn from this book that uses recipes and experiments to teach bodily functions, food chemistry, nutrition, the metric system; explains many mysteries of the kitchen, including secret to crispy french fries, actions of baking powder and yeast; new words are often introduced, but explained well; metric-English conversions appear in every recipe, which also serves as edible science experiment sure to rate highly in any classroom (ASU)

Davis, Burke. BIOGRAPHY OF A FISH HAWK. Putnam, 1977. 64 p. $4.97. Grades 3-6

Trials and tribulations in life history of fish hawk (osprey) from egg to adult; presented in easy-to-read style with wide margins and dramatic, well-illustrated drawings; useful as high-interest supplementary text to illustrate various principles of ecology--e.g. competition, pesticide effects, man's intrusion, migrations (Camp Lejeune)

Davis, Flora. ELOQUENT ANIMALS: A STUDY IN ANIMAL COMMUNICATION. HOW CHIMPS LIE, WHALES SING AND SLIME MOLDS PASS THE MESSAGE ALONG. Coward, 1978. 223 p. $8.95. Grades 9-12

Examines phenomena of animal communication by surveying current studies dealing with such animals as apes, slime molds, fish, army ants, bees; narrative style with many interesting facts, examples presented in well-organized fashion; useful as research in animal behavior studies or as enrichment reading; fine print, lack of illustrations or pictures limit use as pleasure reading; excellent, current bibliography (Alamance County)

Davis, Hubert, comp. & ed. A JANUARY FOG WILL FREEZE A HOG AND OTHER WEATHER FOLKLORE. Crown, 1977. unp. $6.95. Grades 1-12

Compilation of folklore about weather presented in short rhyming verses surrounded by double-paged, masterfully detailed pen-and-ink artwork; notes at end of work provide origin, validity of sayings (Camp Lejeune)

Davis, Joseph A. SAMAKI: THE STORY OF AN OTTER IN AFRICA. Dutton, 1979. 215 p. $10.95. Grades 7-10

Entertainingly depicts the life of Samaki, an African spot-necked otter, as he matures and travels along the Mazingira River; while encountering such animals as crocodiles, baboons, lions and hippos, Samaki learns about the natural laws of survival, including courtship and mating; informative, pleasurable reading with many factual details and a sprinkling of black-and-white illustrations which charmingly portray Samaki and his cohorts; mating section may prove offensive to some readers; preview before purchase (Alamance County)

Dean, Anabel. HOW ANIMALS COMMUNICATE. Messner, 1977. 63 p. $6.64. Grades 5-7

Good supplementary study of such various types of animal communication as smell, touch, which serve animals' mating, protection; much information conveyed by black-and-white, scientifically accurate illustrations surrounding text (Wake County)

Dean, Anabel. PLANTS THAT EAT INSECTS: A LOOK AT CARNIVOROUS PLANTS. Lerner Pubns., 1977. 32 p. $4.95. Grades 2-5

Brief, competent description of such carnivorous plants as Venus's-flytrap, bladderworts, pitcher plants; readable print supplemented by detailed black-and-white drawings of plants from different views; interesting content, but bland format

De Paola, Tomie. THE POPCORN BOOK. Holiday, 1978. unp. $6.95. Grades K-4

Clever combination of fact and fiction; while Tony cooks popcorn, Tiny reads aloud about the origin, history, use of popcorn; full-page color drawings amusingly depict both plot lines--the historical lesson and the actual "popping" experience; large print, vivid illustrations encourage enjoyment by children of varying ages

De Waard, E. John, and Aaron E. Klein. ELECTRIC CARS. Doubleday, 1977. 102 p. $6.90. Grades 7-12

Predating gasoline auto, electric car may return to favor; describes history of electric, steam, gasoline engines; explains how electric motor works, how cars are controlled, methods which can be used to produce electricity by solar or nuclear sources; black-and-white photographs show auto designs through ages (Camp Lejeune)

Donnan, John A., and Marcia Donnan. RAIN DANCE TO RESEARCH: THE STORY OF WEATHER CONTROL. McKay, 1977. 148 p. $7.95. Grades 8-12

Traces man's fascination with weather control from tales of ancient gods to magic and folklore, including basic introduction to atmosphere's behavior, life cycle of a cloud; beginning with discussion of rainmakers and proceeding to current techniques, author describes developing art of weather modification in practical terms; well illustrated with photographs, line drawings; text assumes and accepts appropriateness of weather modification with only slight reference to opponents; legal problems are considered (Cumberland County)

Doss, Helen. YOUR SKIN HOLDS YOU IN. Messner, 1978. 64 p. $6.97. Grades 5-8

Many aspects of skin introduced in clear text extended by black-and-white photographs, drawings; brief chapters focus on functions, problems, differences, care; vocabulary, even in glossary, more advanced than format indicates

Doty, Roy. WHERE ARE YOU GOING WITH THAT COAL? Doubleday, 1977. 62 p. $6.90. Grades 4-7

Cursory treatment of most anything young readers might want to know about coal; past, present, future uses of this abundant fossil fuel presented with overwhelming number of facts, phrases; each page topped by a well-drawn blue, black, and white illustration; chronological approach, glossary, index helpful for research (ASU)

Durrell, Gerald. THE STATIONARY ARK. S&S, 1976. 159 p. $8.95. Grades 10-12

Absorbing account of author's persistent efforts to develop ideal zoo on island of Jersey; extraordinarily sensitive to animals' needs and wants, he discusses collecting, housing, displaying, feeding, mating of rare animals and other aspects of running a humane zoological garden; students will enjoy author's expertise and fascinating vignettes illustrated with black-and-white photographs (Wilkes County)

Edelson, Edward. WHO GOES THERE? THE SEARCH FOR INTELLIGENT LIFE IN THE UNIVERSE. Doubleday, 1979. 196 p. $9.90. Grades 10-12

Comprehensive survey of present knowledge, status of current search for life in universe; space missions, laboratory investigations, theories, UFO's (ufology), present space activities included; while not for the beginning reader, book does treat various topics in relatively simple manner; sparsely illustrated (Cumberland County)

Engdahl, Sylvia, and Rick Roberson. THE SUBNUCLEAR ZOO: NEW DISCOVERIES IN HIGH ENERGY PHYSICS. Atheneum, 1977. 100 p. $5.95. Grades 9-12

Efficiently explains sub-atomic particles, a complex subject, in easy-to-understand terms; scientifically accurate approach and content; sparingly illustrated with black-and-white drawings, photographs; index provided

Engdahl, Sylvia, and Rick Roberson. TOOL FOR TOMORROW: NEW KNOWLEDGE ABOUT GENES. Atheneum, 1979. 94 p. $5.95. Grades 9-12

Carefully balanced exploration of genetic engineering; scientific, frank discussion of pros and cons of controversial subject; surveys agricultural benefits (Arabian horses, mules, hybrid plants), potential for use in medical treatment (including possibilities of unwarranted side effects), precautions needed against misuse and accidents; appropriate terminology used in understandable fashion; informative, interesting text expanded by few, well-captioned photographs (Lincoln County)

Epstein, Sam and Beryl. DR. BEAUMONT AND THE MAN WITH THE HOLE IN HIS STOMACH. Coward, 1978. 64 p. $5.49. Grades 3-6

In 1822 frontiersman Alexis St. Martin was shot in the stomach; for many years thereafter he was subject to experiments by his physician--haughty, insensitive William Beaumont; mutually beneficial, but unfriendly relationship is described in this fictionalized account of experiments which greatly advanced medical knowledge; full-page, black-and-white line drawings reflect emotions, atmosphere of this highly readable story (Camp Lejeune)

Epstein, Sam and Beryl. THE FIRST BOOK OF ELECTRICITY. 3rd ed. Watts, 1977. 64 p. $4.47. Grades 4-6

Cogent discussion of electricity--how it is made, measured, transmitted, used; also includes explanation of such recent developments as solar cells, thermoelectric generators; clear black-and-white photographs, diagrams illuminate text; emphasis on practical use of electricity, directions for three manageable experiments will appeal to young readers; suggested supplemental readings, concise glossary, index create an excellent reference source; priority purchase

Farber, Norma. NEVER SAY UGH TO A BUG. Described on Languages Advisory List

Fegely, Thomas D. THE WORLD OF FRESHWATER FISH. Dodd, 1978. 128 p. $5.95. Grades 5-10

General treatment of heterogeneous information about freshwater fish: internal and external body structure, body functions, behavior, predators, parasites, pollution; later chapters devoted to characteristics, nature of specific fishes; distinct black-and-white photographs appropriately represent text; brief bibliography, detailed index provided

Feinberg, Gerald. WHAT IS THE WORLD MADE OF? ATOMS, LEPTONS, QUARKS, AND OTHER TANTALIZING PARTICLES. Anchor, 1977. 290 p. $3.95 paper. Grade 12

Dr. Feinberg has made a valiant attempt to explain the world of 20th-century physics for the layman; unfortunately, he has not succeeded; without more illustration and less mathematics, text will remain virtually unreadable by average students; schools offering advanced chemistry and physics courses might seriously consider this book because clear, lucid explanations of today's advanced physical theories are rare; advanced students interested in atomic structure, relativity, subatomic particles, particle interactions should find this book absorbing (Cumberland County)

Fichter, George S. A CHANGING WORLD FOR WILDLIFE. Golden Pr., 1977. 141 p. $10.95. Grades 7-12

Dividing world into "life zones" or habitats, author documents hundreds of instances where man's thoughtlessness and greed have annihilated or seriously endangered particular animal species; he pleads for protection of wildlife through extensive development of appropriate refuges; beautiful watercolor paintings, black-and-white drawings illuminate this impassioned treatise (Caldwell County)

Fichter, George S. THE FUTURE SEA. Sterling, 1978. 168 p. $11.69. Grades 6-9

Introductory level book for students interested in oceanography; simple text with numerous color photographs which reinforce points; topics include inhabiting, diving, mining, and farming the sea, along with such available resources as salt, fresh water, food, medicines; optimistic, sometimes simplistic look at preserving, exploring earth's last frontier (Cumberland County)

Fisher, Timothy. HUTS, HOVELS AND HOUSES. Addison, 1977. 48 p. $4.46. Grades 6-12

Here, at last, is a book on building that a 12-year-old can read and enjoy; describes step-by-step procedures for constructing houses of cans, newspaper log cabins, sod houses, much more; mature vocabulary uses such words as *"crenelation"* and *"tetrahedron"*; however, drawings and explanations leave no doubt as to what words mean; an asset to any middle or high school library (Caldwell County)

Flower, Phyllis. BARN OWL. Harper, 1978. 62 p. $4.79. Grades K-4

Birth, development, eventual mating of a barn owl are traced with attention to scientific details in an unimaginative text; accompanying three-color illustrations are clear, detailed

Fodor, R. V. EARTH IN MOTION: THE CONCEPT OF PLATE TECTONICS. Morrow, 1978. 95 p. $5.49. Grades 5-9

Clearly illustrated history of development and explanation of plate tectonics theory as it is presently understood; text moves from one idea to next, avoiding unnecessary detail or complication; numerous diagrams illustrate each idea; Dr. Fodor is on the faculty at N.C.S.U. (Cumberland County)

Fodor, R. V. WHAT DOES A GEOLOGIST DO? Dodd, 1977. 62 p. $5.25. Grades 6-9

Describes education, professional activities, equipment, techniques of geochemists, petrologists, meteoriticists, geochronologists, other specialized geologists in interesting narrative style; several clear, black-and-white photographs; easy-to interpret diagrams

Fodor, R. V. WHAT TO EAT AND WHY: THE SCIENCE OF NUTRITION. Morrow, 1979. 96 p. $5.71. Grades 4-7

Easily understood study of effects of good nutrition on our health; chapters detail best sources of five major nutrients, common diseases and disorders (including anorexia nervosa) resulting from diet deficiencies; sections also included on preservation, processing, selection of food, tips for snacks; reference chart of nutrient content uses 100 gram values rather than typical servings

Ford, Barbara. ANIMALS THAT USE TOOLS. Messner, 1978. 96 p. $7.29. Grades 5-7

Well-documented discussion of animals that use tools, any "object outside the body that helps an animal use its legs or some other body part to achieve a goal"; cites specific instances of such animals as insects, birds, fish, monkeys, early man using tools; black-and-white photographs, line drawings graphically illustrate text; should stimulate profitable discussions on behavior, intelligence; succinct glossary, useful index provided

Fox, Michael, and Wende Nevlin Gates. WHAT IS YOUR DOG SAYING? Coward, 1977. 96 p. $7.95. Grades 4-8

Many gestures common to all dogs are rooted in instinct, early experiences; this guide to dog body language explains such acts as nuzzling and face licking, urging pet owners to observe their dogs and learn to recognize the animal's needs and desires; owners' questions, experts' answers fill most pages, addressing wide variety of concerns regarding dogs' actions, wishes; numerous black-and-white photographs illustrate clear, concise, instructive text; especially useful reading prior to acquisition of a dog (ASU)

Fox, Michael W. WILD DOGS THREE. Coward, 1977. 64 p. $6.95. Grades 3-6

Veterinarian's compassionate observation of three abandoned dogs follows their struggles for survival in hostile city; author tends to overlay dogs' activities with human emotions and reactions, ultimately suggesting that it may be good that Tipps is unable to bring puppies into their world of uncertainty and suffering; disappointingly poor quality photos mar this sympathetic portrait (Camp Lejeune)

Freedman, Russell. GETTING BORN. Holiday, 1978. unp. $6.95. Grades 5-8

Traces development of the embryo, birth of a variety of animals from trout to horses; easily understood text describes activities of each parent during and immediately after birth; numerous black-and-white photos illustrate stages of birth; straightforward, informative treatment with surprising, interesting details; preview of this content area is always advisable when possible (Caldwell County)

Freedman, Russell. HANGING ON: HOW ANIMALS CARRY THEIR YOUNG. Holiday, 1977. 32 p. $5.95. Grades K-4

Black-and-white photographs with fitting, but unimaginative commentary show 22 animal parents carrying their infants; illustrations include animals transporting young in pouches, on their backs, in their mouths, in their arms; representative selection determined by photographers' resourcefulness (Shelby City)

Freedman, Russell. HOW BIRDS FLY. Holiday, 1977. 64 p. $6.95. Grades 5-8

Detailed description of characteristics, movement that enable birds to fly--e.g., feathers, wing contour, muscles, lift; different types of birds, their methods of flight also examined; elementary experiment to illustrate air lift, clarity of explanations, pencil drawings, functional glossary, index will encourage readers; helpful resource book

Freeman, Tony. ON THE MOVE: BLIMPS. Childrens, 1979. 45 p. $5.95. Grades 3-5

Children take ride on Goodyear blimp, *Columbia*, and learn of its history, construction, use, operation; colorful photographs will attract and inform casual readers; bold print of text belies mature vocabulary of text and glossary

Freese, Arthur S. THE BIONIC PEOPLE ARE HERE. McGraw, 1979. 103 p. $6.95. Grades 9-12

Factual, informative summary of current and developing uses of bionics; views myth and reality of historical development; explains many recent uses of various types of prostheses; some discussion of present research, including new structural materials and healing with electricity; of particular interest to students considering medical careers (Alamance County)

Freschet, Berniece. POSSUM BABY. Putnam, 1978. 48 p. $5.29. Grades K-3

"A See and Read Nature Story" of opossum from its first venture out of its mother's pouch at two months to independence at four months; hunting, self-preservation ("playing possum"), developing independence accurately recorded in ink drawings which capture joy, healthy skepticism of new adventures (Caldwell County)

Gadler, Steve J., and Wendy Wriston Adamson. SUN POWER: FACTS ABOUT SOLAR ENERGY. Lerner Pubns., 1978. 103 p. $6.95. Grades 6-11

Ancient attitudes, early experiments, present and developing uses of solar energy discussed in simple, interesting book; pros and cons of use of solar energy evaluated with cons being turned aside; liberally illustrated with black-and-white photographs, diagrams; brief glossary (Cumberland County)

Gallant, Roy A. EARTH'S CHANGING CLIMATE. Four Winds, 1979. 226 p. $9.95. Grades 8-12

Thorough, lucid explanation of causes and effects of earth's climate; beginning with discourse on causes of weather, author continues with discussion of earth's history, ancient climates, climatic extremes, causes of change and concludes with examination of how man contributes to climatic change; illustrative black-and-white photographs, line drawings interspersed with text (Cumberland County)

Gallant, Roy A. FIRES IN THE SKY: THE BIRTH AND DEATH OF STARS. Four Winds, 1978. 162 p. $7.95. Grades 8-12

Readable, understandable narrative treats history, current state of astronomical study; complex experiments and equations (e.g., measuring size or luminosity of sun) are broken down into logical steps easily followed by scientifically, mathematically oriented students; supplemented by several black-and-white photographs, drawings; appendix includes metric conversion table, discussion of exponential equations, explanation of atomic clocks; excellent glossary (Cumberland County)

Gardner, Robert. MAGIC THROUGH SCIENCE. Doubleday, 1978. 162 p. $6.90. Grades 8-12

Simple scientific experiments presented as magic tricks complete with acts, scenes, equipment, procedures, scientific explanation of principles involved in each trick;

MAGIC THROUGH SCIENCE. (Cont'd.)

tricks utilize scientific principles of optics, chemistry, physics--e.g., eggs floating or sinking in water due to density changes by addition of certain chemicals; each trick well represented by black-and-white photographs or diagrams; because dangerous chemicals are involved in some experiments, this book is suggested for more serious student, for teacher to use as high-interest illustrations of certain scientific principles; table of contents is not specific; no index (Camp Lejeune)

Gardner, Robert, and David Webster. MOVING RIGHT ALONG: A BOOK OF SCIENCE EXPERIMENTS AND PUZZLERS ABOUT MOTION. Doubleday, 1978. 165 p. $7.90. Grades 6-11

Efficiently presents information about motion, suggests simple activities which illustrate principles involved; approximately one-third of text provides background for understanding experiments described in rest of book; speed records recounted include those set by animals, humans, man-made inventions; black-and-white illustrations are comprised of action photographs, diagrams of experiments; interesting reading or reference source

Garelick, May. IT'S ABOUT BIRDS. Holt, 1978. 59 p. $6.95. Grades 3-5

Text based on questions asked by third, fourth, fifth grade students expressing their particular interests; generalized answers with specific references as appropriate; vocabulary and content geared to questioners; excellent index contains identifying characteristics of birds; beautiful illustrations would have been superb in color (Wake County)

Garrison, Paul. THE ENCYCLOPEDIA OF HOT AIR BALLOONS. Drake, 1978. 128 p. $6.95 paper. Grades 8-12

Readable introduction to hot air ballooning covers history, principles, techniques of ballooning, as well as available schools and clubs, notable flights, rules and regulations, annual ballooning events; fascinating reading for anyone wishing to know more about ballooning; illustrated with many black-and-white photographs; glossary and index; large size (Wilkes County)

Garrison, Webb. WHY DIDN'T I THINK OF THAT? FROM ALARM CLOCKS TO ZIPPERS. Prentice, 1977. 120 p. $6.95. Grades 4-8

Alphabetical listing of familiar objects with interesting trivia regarding their inception; emphasis on *why* rather than *how*; few dates given; among 63 lighthearted, one-page entries are the alarm clock, Ferris wheel, Levis, self-service shopping, telephone directories; for fun rather than research (Camp Lejeune)

Gemme, Leila Boyle. THE TRUE BOOK OF SPINOFFS FROM SPACE. Childrens, 1977. 45 p. $4.95. Grades 2-4

Pictures fireproof clothes, life rafts, portable ambulance module, hang glider--all spinoffs from NASA space program; defines *spinoffs*, describes in simple terms great boon of space program to health, safety, food; bold print; plenty of color, black-and-white photographs; suggested as reference source for primary students (Camp Lejeune)

Gemme, Leila Boyle. THE TRUE BOOK OF THE MARS LANDING. Childrens, 1977. 47 p. $4.95. Grades 3-6

Colorful, detailed photographs of Mars' surface is worth price of book; describes Mars landings of Viking I and Viking II, scientists' search for signs of life on the planet; each page, with large print and wide margins, faces full-page NASA

THE TRUE BOOK OF THE MARS LANDING. (Cont'd.)

photograph (most are in color); although it includes one erroneous statement: "Mars is the planet nearest to Earth," it is still an informative book; useful for units on solar system, search for living things or as independent reading material (Alexander County)

Goins, Ellen H. THE LONG WINTER SLEEP: THE STORY OF MAMMAL HIBERNATION. McKay, 1978. unp. $5.95. Grades 3-6

Preparation and physical changes involved with differentiation between light and heavy sleepers explained in accurate, informative text; line drawings on each page leave much to reader's imagination but give sensation of winter bleakness; lack of table of contents, index, captions, chapters or headings severely hampers use as reference tool (Wake County)

Goins, Ellen H., and John L. Tveten. TREASURES OF THE NEST: BIRD EGGS. McKay, 1978. 56 p. $6.95. Grades 5-8

Physical characteristics, nesting behavior, survival techniques of numerous species of birds described by focusing on egg, beginning with actual development within bird; text uses appropriate scientific vocabulary; quality black-and-white photographs and drawings; excellent reference source for beginning bird studies

Gordon, Bernard L. and Esther S. IF AN AUK COULD TALK. Walck, 1977. unp. $5.95. Grades 2-6

The auk, docile, flightless seabird, became extinct in 1844 through man's thoughtless, brutal slaughter; this inhumane massacre, related in shocking, touching detail, is sure to affect anyone's emotions; descriptions of the auk, its life, habits are simply told; intriguing title, clear writing style, unusual and interesting subject matter warrant book's inclusion in any library (ASU)

Gotch, A. F. MAMMALS--THEIR LATIN NAMES EXPLAINED: A GUIDE TO ANIMAL CLASSIFICATION. Blandford Pr., 1979. (Available from Sterling.) 271 p. $13.95. Grades 10-12

Useful reference for any junior or senior high school library's science collection; first five chapters provide clear, understandable guide to animal taxonomy, particularly as it applies to mammals; rest of book is a systematic description of the meanings of mammals' scientific (Latin) names; several of the most common members of an order are included, with classification charts adding clarity; clear, easily deciphered guide to basic structure of taxonomic system (Cumberland County)

Gottlieb, Leonard. FACTORY MADE: HOW THINGS ARE MANUFACTURED. Houghton, 1978. 112 p. $7.95. Grades 6-10

Methodically guides reader through manufacturing plants that produce everything from toilet seats, fire hydrants, and buttons to rubberbands, bricks, and eyeglass frames; processes, which include hand and automated operations, are described in simple language, illustrated by clear black-and-white photographs; arbitrary arrangement of chapters; appealing to students interested in industrial arts (Cumberland County)

Graham, Ada and Frank. BUG HUNTERS: AN AUDUBON READER. Delacorte, 1978. 100 p. $6.46. Grades 5-8

Factual narrative advocates biological pest control by recounting several instances of success in contrast with disasters caused by "deadly rain" of chemicals; scientists of USDA, related agencies brought to life in this realistic portrayal of their activities (Camp Lejeune)

Green, Susan Kohn. GENTLE GORILLA: THE STORY OF PATTY CAKE. Marek, 1978. 303 p. $10. Grades 7-12

Touching story of discovery, love; author's study of gorillas began as part of her work as an animal illustrator; this diary, which accompanies her delicate drawings, chronicles the life of Patty Cake, new-born gorilla, and the developing love, understanding between gorillas and humans and also within gorilla family; lengthy, intriguing text excels in compassion, interest, instruction; useful, popular addition to any science collection (Cumberland County)

Gregory, Diana. OWNING A HORSE: A PRACTICAL GUIDE. Harper, 1977. 208 p. $9.95. Grades 7-12

Practical guide to horse ownership; straightforward, non-frivolous tips on buying, feeding, tack, dressing, mounting, showing; neat, precise drawings; technical terms used only as necessary; glossaries of "horse talk" at end of each chapter (Camp Lejeune)

Griffiths, G. D. MATTIE: THE STORY OF A HEDGEHOG. Delacorte, 1977. 91 p. $5.47. Grades 4-8

Mattie, a hedgehog, becomes partially tame as she roots for insects, runs with her brother Quill, raises several litters in a garden flower pot owned by kindly English couple; she retains vestiges of the wild as she returns to woods to die; life cycle narrated in natural, straightforward manner; death dealth with an natural process, not as taboo subject; humans are only unnamed incidentals in this story centered on animals; possible leisure reading, but content level on hedgehog behavior is high; some black-and-white drawings; however, narration provides all the pictures one could want; engrossing (Camp Lejeune)

Grillone, Lisa, and Joseph Gennaro. SMALL WORLDS CLOSE UP. Crown, 1978. unp. $7.95. Grades 5-12

Black-and-white photographs open a new world--unusually close up; micrographs produced by scanning objects with an electron microscope, showing them magnified from 60x to 6000x; peculiar, somewhat disappointing choice of subjects, not necessarily of high interest to average student, includes fungus, toothpick, fruit fly's leg; enrichment for many ages (Camp Lejeune)

Gross, Ruth Belov. ALLIGATORS AND OTHER CROCODILIANS. Four Winds. 58 p. $5.95. Grades 4-6

Logically sequenced presentation of basic facts about crocodilians; even though major questions children might ask are answered, explanations lack depth, detail; accompanying black-and-white photographs clearly exemplify easy-to-read, clear-cut text; measurements given in metric terms, with customary equivalents at bottom of each page

Gurney, Eric. THE CALCULATING CAT RETURNS. Prentice, 1978. unp. $5.95. Grades 7-12

Humorous account of cat habits with suggestions for human adjustment to the cat; cat lovers will especially appreciate pen-and-ink illustrations; suitable for fun reading--especially by cat owners (Wake County)

Haggerty, Arthur J., and Carol Lea Benjamin. DOG TRICKS: TEACHING YOUR DOG TO BE USEFUL, FUN, AND ENTERTAINING. Dolphin, 1978. 138 p. $4.95 paper. Grades 7-12

Humorously presents collection of dog tricks, checked for health and safety by several veterinarians, that range from natural skills to rather elaborate adroitness; designed for dogs who know basic commands, list includes retrieving, scent

DOG TRICKS: TEACHING YOUR DOG TO BE USEFUL, FUN, AND ENTERTAINING. (Cont'd.)

discrimination, life-saving, circus, parlor tricks; appended trick aptitude chart shows general ability of dog breeds to do certain types of tricks; appealing black-and-white photographs, clever cartoons depict dogs performing tricks; for fun and information

Halacy, D. S., Jr. ICE OR FIRE? SURVIVING CLIMATIC CHANGE. Harper, 1978. 212 p. $9.95. Grades 8-12

Clearly written introduction to little-known, poorly understood subject of climate, its modification; covers such topics as nature's weather-changing activities, weather prediction, history of weather modification efforts; second half investigates trends in climatic change, considers answers to question of whether major climatic changes are taking place; lack of illustrations necessitates interested reader (Cumberland County)

Hancock, Ralph. SUPERMACHINES. Viking, 1978. 61 p. $5.95. Grades 4-6

Supermachines solve problems by being especially fast, thrilling, strong, adaptive; 16 vehicles described include race car, combine, nuclear submarine; vocabulary, content are for competent reader; most experiments are for less knowledgeable student; large picture book style with format designed for easy access to information; clearly drawn illustrations carefully use color to maximize identification of specific machine parts; highly informative (Wilkes County)

Harris, Lorle. BIOGRAPHY OF A RIVER OTTER. Putnam, 1978. 64 p. $5.49. Grades 2-4

Descriptive narrative of otter family from birth of three cubs through their first year; readers glean multitude of scientific facts through author's subtle examination of birth process, mother's attempts to find food, cubs' swimming lessons, otters' courtship and mating process, winter survival; numerous illustrations in shades of brown and green, large print will appeal to intended young audience; practical for individual or group reading; preview before purchase or use (Wake County)

Harris, Susan. REPTILES. Watts, 1978. 48 p. $4.90. Grades 1-4

Elementary compendium of reptiles, including snakes, turtles, lizards, alligators, crocodiles; realistic color drawings are overwhelming addition to this brief text, which is occasionally superficial, inconsistent with vivid illustrations; easy-to-read source, guide to identifying reptiles; strong visual attraction (Camp Lejeune)

Hartley, William and Ellen. THE ALLIGATOR: KING OF THE WILDERNESS. Elsevier/Nelson, 1977. 175 p. $7.95. Grades 6-12

Objective attempt to dispel alligator's negative image, providing extensive information to support claim that the alligator is "the most valuable animal in Florida"; detailed discussion of animal's physical characteristics, habits, important role in swampland ecology; historical accounts of enthusiastic alligator hunters, haters countered with reasons for protecting this endangered species; style, though coarse, is generally clear, thorough, entertaining (ASU)

Hartman, Jane E. ANIMALS THAT LIVE IN GROUPS. Holiday, 1979. 125 p. $6.95. Grades 6-10

Straightforward treatment of animals' social behavior, specifically their propensity for grouping; filled with terms, concepts that are illustrated by numerous examples, discussions focus on aggregative behavior, mammal grouping, grouping in the sea and on land, communication skills, territoriality, altruism; black-and-white photographs highlight interesting text, flowing style; glossary, reading

ANIMALS THAT LIVE IN GROUPS. (Cont'd.)

list, index included; useful as high-interest reading, teacher's guide for introducing animal behavior unit (Alamance County)

Hartman, Jane E. LOOKING AT LIZARDS. Holiday, 1978. 122 p. $6.95. Grades 6-10

Thorough examination of groups of lizards--detailing behavior, habitat, physical characteristics of many species; agamids, chameleons, iguanids, geckos, monitors, armadillos are discussed in unaffected style, depicted in their natural environments by black-and-white photographs; index, glossary, suggested readings appended to this source suitable for enrichment, reference (Alamance County)

Hayes, Jack, ed. LIVING ON A FEW ACRES. THE YEARBOOK OF AGRICULTURE. Described on Vocational Education Advisory List

Hays, James D. OUR CHANGING CLIMATE. Atheneum, 1977. 101 p. $6.95. Grades 6-10

Surveys effects of sun and atmosphere on local, regional climates of the earth; drawings, diagrams illustrate scientific principles underlying these points; seriously weighs latest scientific theories concerning continental drift and its effects on the climate, early climate of the earth, impact of man on climate and climate on man, emergence of new Ice Age; clean-cut style, manageable length make this source an excellent supplement to units on weather, climate (Camp Lejeune)

Headstrom, Richard. YOUR REPTILE PET. McKay, 1978. 120 p. $7.95. Grades 6-12

Concise, compact guide to obtaining, caring for reptile pets; general introduction gives helpful information about reptiles' habits and habitats, necessary foods for captive reptiles, rules for care of reptiles; twenty descriptions of specific reptiles follow and include black-and-white illustrations, food habits, desirability of individual reptiles as pets; appended bibliography, list of specific names of reptiles, animal dealers, addresses of fish and wildlife services, index (Wake County)

Herda, D. J. MAKING A NATIVE PLANT TERRARIUM. Messner, 1977. 93 p. $7.29. Grades 3-6

Step-by-step procedures for creating glass-enclosed world of plants; includes guidelines for choosing containers, sterilizing soil, landscaping garden, caring for garden; special tips on picking native plants, growing plants from seed--both practical, inexpensive options for grade school student; black-and-white illustrations with sketchy descriptions are of limited help in identification (Camp Lejeune)

Herriot, James. ALL THINGS WISE AND WONDERFUL. St. Martin's, 1977. 432 p. $10. Also available from Bantam for $2.75 paper. Grades 7-12

Described on Fall 1978 Biography Advisory List

Hess, Lilo. THE AMAZING EARTHWORM. Scribners, 1979. 48 p. $7.95. Grades 5-10

Though an unlikely subject for "popular" book, here is a readable story of life, structure, habits, characteristics of earthworms; photography used throughout is unusually good, strongly reinforces author's points; suggested experiments should be edifying and fun for upper elementary life science, basic biology students (Cumberland County)

Heuer, Kenneth. RAINBOWS, HALOS, AND OTHER WONDERS: LIGHT AND COLOR IN THE ATMOSPHERE. Dodd, 1978. 108 p. $5.95. Grades 6-12

Actual black-and-white photographs and prints beautifully, adequately illustrate accounts of atmosphere's phenomena; text carefully describes such spectacles as green and blue flashes, scintillation, twinkling of stars, looming and towering, mirages, halos, various dew bows and light displays which can be scientifically explained by refraction, reflection, diffraction, scattering perspective; author also specifies unsolved mysteries regarding luminescence; high-interest contents of enormous value as background for physics, science students

Hobbs, Laura. CARS. Watts, 1977. 48 p. $3.90. Grades 3-5

Basic introduction to cars gives brief coverage of different makes and models, types of engines, and fuel, ignition, cooling, lubrication, transmission, brake, steering systems; boldly illustrated with black-and-white photographs, two color drawings, diagrams; concisely prepared, indexed for young students interested in cars (Wilkes County)

Hogner, Dorothy Childs. WATER PLANTS. Holiday, 1977. 96 p. $6.95. Grades 5-8

Abbreviated digest of water plants containing short discussions about salt- and fresh-water plants, floating and submerged plants, accompanying problems; special emphasis placed on algae, its possibility as food source; drab black-and-white photographs, drawings scattered throughout text; simple projects, experiments, glossary, suggested reading list included (Camp Lejeune)

Hopf, Alice L. ANIMALS THAT EAT NECTAR AND HONEY. Putnam, 1979. 110 p. $6.95. Grades 6-10

Accurate, informative study of pollination and animals that eat nectar, thereby being agents of pollination; unadorned style enlivened by excellent illustrations from which students can learn bee's life cycle, flower parts, other pertinent information; specific glossary, list of suggested readings, detailed index render this book useful for reference as well as enrichment (Wake County)

Hopf, Alice L. BIOGRAPHY OF A GIRAFFE. Putnam, 1978. 61 p. $5.49. Grades 3-6

Storybook presentation set in Africa of giraffe's life habits; traces development of bull giraffe from his birth to the time he mates, starts his own herd; sensitive, unsophisticated text enhanced by Patricia Collins' soft gray etchings; appealing, informative approach; birth, mating sections may prove offensive to some readers (Wake County)

Hopf, Alice L. BIOGRAPHY OF A SNOWY OWL. Putnam, 1979. 63 p. $5.49. Grades 3-5

Young readers with an interest in nature will like this real-life adventure of a snowy owl as he matures; leaving his protective parents, he learns firsthand the laws of survival in the Arctic tundra; tender, black-and-white line drawings accentuate each page, enlighten text; interesting facts subtly interwoven with comfortable style (Alamance County)

Hopf Alice L. WILD COUSINS OF THE HORSE. Putnam, 1977. 127 p. $6.50. Grades 6-9

Horse lovers will acquire copious information from this multitude of facts about wild horses; thoroughly researched text includes descriptions of ancient horses, relatives of horses, now extinct breeds, brief encounters with modern breeds that man has failed or neglected to domesticate; black-and-white photographs scattered throughout text picture various breeds; bibliography, index appended (ASU)

Horsburgh, Peg. LIVING LIGHT: EXPLORING BIOLUMINESCENCE. Messner, 1978. 94 p. $7.29. Grades 5-7

Accurate overview of living organisms that produce light--bioluminescence; thorough coverage of light-producing organisms, including bacteria, fungi, worms (larvae), fish, fireflies; informative discussion of how bioluminescence is medically and technologically useful to humans; final chapter gives suggestions for helping science by collecting, selling fireflies; numerous black-and-white photographs, systematized chart concerning bioluminescent plants and animals, helpful glossary, index appended

Hoyle, Fred, and Chandra Wickramasinghe. LIFECLOUD: THE ORIGIN OF LIFE IN THE UNIVERSE. Harper, 1978. 189 p. $9.95. Grades 11-12

Lucid, thorough discussion of one theory of life's beginning; black-and-white photographs, line drawings, charts supplement argument that earth was bombarded by meteorites and comets carrying living cells developed through biochemical evolution of the atmosphere (Cumberland County)

Huber, Frederick C. LIGHT: COLOR AND LIFE FOR THE WORLD. McKay, 1978. 51 p. $6.95. Grades 4-7

Brief, well-written introduction to relationship of light to living things; discusses basic properties, history, effects of light and briefly considers light pollution; black-and-white photographs, diagrams leave something to be desired in book about color, but clearly stated ideas compensate (Cumberland County)

Humphrey, Henry. THE FARM. Doubleday, 1978. unp. $5.95. Grades 2-5

Realistic view of farm life presented in easy-to-read style, bold print, large black-and-white photographs; in an attempt to show that farming is work, author shows farm animals, buildings, machinery, and family members' milking, feeding stock, planting, plowing, fertilizing crops; special section on chickens' hatching by pecking out of their shells; illustrated cover will attract young reader's eye (Camp Lejeune)

Hurd, Edith Thacher. THE MOTHER CHIMPANZEE. Little, 1978. 32 p. $5.95. Grades K-4

Tender story of infant chimpanzee's relationship with its mother, other chimpanzees; covers some basic principles of chimpanzee behavior but emphasizes mother-infant relationship; green, red woodcut illustrations give jungle effect, lack animation; easy-to-read, bold print (Camp Lejeune)

Hutchins, Ross E. A LOOK AT ANTS. Dodd, 1978. 48 p. $4.95. Grades 4-7

Fascinating view of ants revealed through entomologist's informal text, close-up black-and-white photographs; pictures and discusses ants' life cycles, behavior, habitats, responsibilities--e.g., hunting food, growing mushrooms, herding "livestock"; unusually thorough treatment for such a thin volume (Camp Lejeune)

Jaber, William. WHATEVER HAPPENED TO THE DINOSAURS? Messner, 1978. 159 p. $7.29. Grades 8-12

History of paleontology and geology skillfully woven into story of dinosaurs' evolution, extinction; painstakingly marshalls recent scientific theories to explain that extinction; examines opposing views about whether dinosaurs were really reptiles; draws parallel between dinosaurs and humanity; enlivened by well-executed, imaginative line drawings

Jacobs, Francine. THE RED SEA. Morrow, 1978. 79 p. $5.71. Grades 7-10

Surveys the physical, ecological, economic, historical aspects of the Red Sea, with special attention to its uniqueness as a habitat; recounts recent geologic investigations of mineral-rich hot brine pools, role of plate tectonics in the origin and future of the Red Sea; good material in condensed form; index (Alamance County)

Jacobs, Francine. SOUNDS IN THE SEA. Morrow, 1977. 95 p. $4.59. Grades 4-6

Straightforward, well-organized introduction to sounds made by such sea animals as snails, sea horses, croakers, whales, porpoises; also includes brief, interesting discussion of how man can use these sea sounds; large print, simple scientific content, labeled black-and-white drawings will appeal to young sea-lovers

Jarrell, Randall. A BAT IS BORN: FROM *THE BAT-POET*. Doubleday, 1978. unp. $6.90. Grades K-4

Described on Fall 1978 Languages Advisory List

Jenkins, Marie M. GOATS, SHEEP, AND HOW THEY LIVE. Holiday, 1978. 157 p. $7.95. Grades 7-10

Considerable, interesting information about unusual subject unfortunately presented in flat, disjointed manner; greatly enriched by attractive, accurate drawings; extensive reading list includes periodicals and books; inadequate index a hindrance to use for research (Wake County)

Jobb, Jamie. THE NIGHT SKY BOOK: AN EVERYDAY GUIDE TO EVERY NIGHT. Little, 1977. 127 p. $7.95. $4.95 paper. Grades 5-8

Delightfully friendly guide for middle school stargazer; gives directions for observing night sky, legends surrounding constellations; best parts of book are suggestions of possible student activities, such as making a solar stone, calculating north, measuring altitude, constructing a medicine wheel; well-organized, accurate information; appealingly illustrated with whimsical pen sketches, hand lettering; descriptive table of contents; Brown Paper School book (Caldwell County)

Johnson, Donna Kay. BRIGHTEYES. Holt, 1978. unp. $5.95. Grades 1-4

True, informative tale of blind mother raccoon's raising her four kits; raccoons' antics, learning processes, lifestyles vividly explained in story form; written in simple, easy-to-follow style; realistic pen-and-ink sketches; pleasant reading for animal lovers

Johnson, Hannah Lyons. FROM SEED TO SALAD. Lothrop, 1978. unp. $6.43. Grades 2-5

Chronologically describes planning, planting, tending, harvesting of vegetable garden; directions, precautions for maintaining garden under various environmental conditions, three recipes for homemade salad dressing also included; accompanying black-and-white photographs feature young children performing tasks explained in text

Johnson, Norman H., D.V.M., with Saul Galin. THE COMPLETE PUPPY AND DOG BOOK. Rev. ed. Atheneum, 1977. 490 p. $14.95. Grades 6-12

Revised comprehensive book all about dogs; list, consisting of each breed recognized by the American Kennel Club, includes black-and-white photographs, descriptions, characteristics, history and origin; additional chapters on nutrition, training and showing, first aid, mating; extensive bibliography included for those interested in specific breeds; all-inclusive book also has section on services, such as boarding, insurance, travel (Camp Lejeune)

Kaufmann, John. LITTLE DINOSAURS AND EARLY BIRDS. Crowell, 1977. 33 p. $5.95. Grades 2-4

Discovery of archaeopteryx, early bird fossil, and resulting theories of bird's evolution from coelurosaur; explains possibility of scales' evolving into feathers, how feathers act as body thermostat, how birds must have begun flying; bold, imaginatively colored drawings; pronunciation guides in text; excellent introductory text for primary readers (Camp Lejeune)

Kavaler, Lucy. THE DANGERS OF NOISE. Described on Social Studies Advisory List

Kelly, James E., and William R. Park. THE DAM BUILDERS. Addison, 1977. unp. $5.21. Grades 2-4

Awesomeness of dam construction captured in explicit text and graphics, definitive illustrations; explanations of each step from decision to build to final use of lake and water power; earthfill and masonry dams described; each piece of heavy equipment identified; significant vocabulary defined (Camp Lejeune)

Kiefer, Irene. GLOBAL JIGSAW PUZZLE: THE STORY OF CONTINENTAL DRIFT. Atheneum, 1978. 79 p. $6.95. Grades 6-12

Organized account of the background, development of plate tectonics--theory which states that earth's crust floats on soft, molten rocks; application of this theory, which successfully explains such changes as earthquakes, enables scientists to predict these phenomena more accurately; numerous diagrams, maps clearly explain straightforward text; glossary, index will aid students doing research

Kinkead, Eugene. WILDERNESS IS ALL AROUND US: NOTES OF AN URBAN NATURALIST. Dutton, 1978. 178 p. $9.95. Grades 10-12

Six sketches probe wildlife survival in our urbanized country; this longtime *New Yorker* contributor's descriptions include search for a nearly extinct tree, information about amazingly indestructible coyotes; last half of book focuses on house sparrow, wild creature totally dependent on man; well written and informative, with few pictures (Wake County)

Kirk, Robert W., D.V.M. FIRST AID FOR PETS. Dutton, 1978. 278 p. $10.95. $5.95 paper. Grades 6-12

Clear, concise, well-illustrated guide; discussion of common accidents, problems includes description, causes, symptoms, treatment for each; section on first aid techniques covers rescue, restraint, dressings, medication; third section addresses common problems of general care; appendices provide additional specific information, including bibliography; a must for pet owners, biologists, libraries (Cumberland County)

Kramer, Jack. PLANT HOBBIES: A BEGINNER'S BOOK OF GARDENING PROJECTS, PRINCIPLES, AND PLEASURES. Collins Pubs., 1978. 77 p. $6.95. Grades 3-6

Simple introductory book for elementary students divided into small chapters, each of which introduces an idea or activity related to growing plants; root windows and cages, small indoor vegetable garden starter, structure of leaves, climbing plants, weed-weaving are among topics included; illustrated with clear black-and-white sketches; appendix includes short bibliography, list of plant mail-order companies (Cumberland County)

Kramer, Jack. QUEEN'S TEARS AND ELEPHANT'S EARS: A GUIDE TO GROWING UNUSUAL HOUSE PLANTS. Collins Pubs., 1977. 96 p. $5.95. Grades 4-8

General introduction to plant selection, potting, care precedes discussion of 37 specific house plants; facing pages feature information on how to care for the plant and black-and-white illustration picturing how plant got its name; unconventional approach to this subject not as striking as one might expect, but practical, concrete directions counteract (ASU)

Kunetka, James W. CITY OF FIRE: LOS ALAMOS AND THE BIRTH OF THE ATOMIC AGE, 1943-1945. Prentice, 1978. 234 p. $10.95. Grades 11-12

Explicity documented, intriguing story of first atomic bombs, the men who created them; accurately follows history of the work at Los Alamos, New Mexico, from its inception to detonation of test bombs; narration then shifts to the Pacific, chronicles bombing of Japan; center section contains black-and-white photographs with accompanying prose identification of participating scientists, living quarters, the bombs; scientific problems, personalities, history of the project expertly blended to create engrossing reading; appended chapter notes, bibliography, glossary, index provide facile reference (Cumberland County)

Landshoff, Ursula. OKAY, GOOD DOG. Harper, 1978. 64 p. $5.79. Grades 1-2

Simple narrative emphasizes praise, kindness in selection, training of puppy; sketchy information on such topics as heeling, staying, sitting up, riding in car; enrichment reading for young child reinforces positive attitude with lively cartoons depicting love for pet; not intended as authoritative work on dog care, but as introduction for young reader (Wake County)

Lauber, Patricia. TAPPING EARTH'S HEAT. Garrard, 1978. 64 p. $4.74. Grades 3-6

Surveys geothermal energy, examines the possibility of putting it to work for man; easy explanations, accompanied by illustrative drawings, reveal how volcano eruptions, hot springs, geysers occur; uninvolved experiments aid students' understanding of these phenomena; well-written overview of current topic enhanced by sketches, maps, black-and-white and color photographs; beautiful color binding will attract young readers interested in mysteries of earth's energy (Caldwell County)

Lawrence, R. D. PADDY: A NATURALIST'S STORY OF AN ORPHAN BEAVER. Knopf, 1977. 240 p. $8.95. Grades 7-12

Warm, loving look at the life of an orphaned baby beaver named Paddy; day-by-day account chronicles growth of Paddy, providing insights into life of this remarkable animal while allowing us to participate in unique relationship between man and beaver; vocabulary appropriate for competent reader (Cumberland County)

Lawrence. R. D. THE NORTH RUNNER. Holt, 1979. 287 p. $8.95. Grades 9-12

Exciting, highly descriptive account of Lawrence's wilderness life with half-wolf, half-Alaskan malamute sled dog, Yukon; they become loving associates in many life-and-death Canadian frontier adventures; Lawrence's love for the wilderness life and for Yukon is eventually challenged by financial demands and Joan, whom he wants to marry; bittersweet resolution occurs when Yukon finds his own lifemate, returns to the wild; excellent style and management of material in a fashion that students with a taste for wildlife and nature stories will truly enjoy (Alamance County)

Laycock, George. ISLANDS AND THEIR MYSTERIES. Four Winds, 1977. 106 p. $7.95. Grades 4-8

In travelogue style, Laycock shares his knowledge of islands; the Galápagos, Hawaii, Florida Keys are among those islands studied for their geography, geology, plant and animal life, ecology, history; well-organized, engrossing presentation will stimulate investigation, desire to travel to these fascinating, varied, endangered areas (ASU)

Laycock, George. WILD HUNTERS: NORTH AMERICA'S PREDATORS. McKay, 1978. 121 p. $7.95. Grades 7-12

Excellent work examining nature of predation, its role in the ecological balance; insects, amphibians, sharks among species detailed in terms of habits, methods of hunting; such concepts as mimicry, protective coloration, food chains, biological control explored; many black-and-white photographs accompany each chapter; no index (Alamance County)

Leen, Nina. MONKEYS. Holt, 1978. 80 p. $6.95. Grades 9-12

Extraordinary photo-essay of monkeys with short accompanying commentary; Dr. Karl F. Koopman, Associate Curator of the American Museum of Natural History, contributes an introductory discussion of primates; black-and-white photographs are grouped under topical headings, such as "The Prehensile Tail," "Sounds of the Forest"; commentary of captions offers illumination, interest; good for browsing, but short on scientific details (Wake County)

Leen, Nina. SNAKES. Holt, 1978. 80 p. $6.95. Grades 3-6

Numerous black-and-white photographs, abbreviated text provide coverage of 39 different types of snakes; introductory list of "snakes in this book" includes such data as snakes' Latin names, geographical ranges, page references; scant narrative discusses such topics as senses, habitat, movement, defense mechanisms, eating habits; suggested readings, index appended

Lefkowitz, R. J. SAVE IT! KEEP IT! USE IT AGAIN! A BOOK ABOUT CONSERVATION AND RECYCLING. Parents, 1977. 64 p. $5.41. Grades 3-6

Presents ways our scarce resources can be recycled; describes renewable, nonrenewable resources, instant trash; accurate, up-to-date information on a timely subject; suggests realistic ways students can conserve--save grocery bags, refuse to buy unneeded items; shaded black-and-brown, delicate drawings; table of contents, comprehensive index with cross-referencing; skillfully written reference/research for young reader; should inspire practical conservation habits (Alexander County)

Lerner, Carol. ON THE FOREST EDGE. Morrow, 1978. unp. $5.71. Grades 4-6

Sensible, ecological appeal for the preservation of forest-edge areas; vitalized by brief accounts of these areas' inhabitants--small animals, birds, insects, plants, berries; poetic prose and abundant, detailed pen-and-ink drawings; glossary provides lucid explanation of more difficult terms; aesthetically appealing; excellent for studies in ecology

Leslie-Melville, Betty and Jock. RAISING DAISY ROTHSCHILD. S&S, 1977. 223 p. $9.95. Grades 9-12

Light-hearted, conversational narrative in which authors tell of their concern, capture, care of two Rothschild giraffes, a breed soon to become extinct; set in Nairobi, story humorously and compassionately reveals the personalities, escapades, affection which grows between the Leslie-Melvilles and the Rothschilds; informative, enjoyable text enhanced by amusing, expressive black-and-white photographs

Lessem, Don. LIFE IS NO YUK FOR THE YAK: A BOOK OF ENDANGERED ANIMALS. Crane, Russak, 1977. (Available from Scribners.) 58 p. $5.95. Grades 4-8

Features the hairy-nose wombat, kagu, quetzal, others; provides technical information, catchy limerick for each of the alphabetically listed 26 animals (man included) said to be in danger of extinction; humorous two-color drawings show animals in "people-oriented" roles; refreshingly light approach to subject that is often made ponderous

Lewis, Bruce. WHAT IS A LASER? Dodd, 1979. 48 p. $5.95. Grades 6-9

Step-by-step explanation of basic concepts necessary to understanding fundamental scientific concepts of lasers--beginning with translation of acronym "laser"; light-hearted drawings, diagrams provide additional visual clarification; describes current practical uses; appropriate for research and incidental reading for students lacking strong math/science background (Wilkes County)

Lewis, Stephen. HOW'S IT MADE? A PHOTO TOUR OF SEVEN SMALL FACTORIES. Greenwillow, 1977. unp. $6.43. Grades 2-6

Wordless tour through seven factories showing the production of objects familiar to children: bicycle, flashlight, umbrella, jump rope, candy, chair, football; each tour consists of small black-and-white photographs shot during various stages of production, ending with full-page photograph of finished item; many photographs are too dark, and some require verbal explanation; useful as introduction to vocations, for inquisitive students, as inspiration to photographers (Caldwell County)

Limburg, Peter R. OCEANOGRAPHIC INSTITUTIONS: SCIENCE STUDIES THE SEA. Elsevier/Nelson, 1979. 265 p. $9.95. Grades 8-12

Marvelous introduction to oceanography; author has avoided simply listing schools and laboratories by having each chapter describe one phase of the science, thereby illustrating its diversity; these chapters, devoted to individual laboratories, are written as guided tours of the agencies and their research programs; total effect is accurate, readable narrative of oceanography; illustrated with numerous black-and-white photographs; glossary of related acronyms; suggested reading list (Cumberland County)

Limburg, Peter R. WHAT'S IN THE NAMES OF WILD ANIMALS. Coward, 1977. 216 p. $5.86. Grades 7-10

Alphabetically arranged entries in this book contain name origin, genealogy, history, habitat of animals as well as interesting, informative sidelights; Murray Tinkelman's tasteful drawings precede each description; introduction is good review of principles of scientific classification; supplemental reading list included (Wake County)

Lewin, Ted. WORLD WITHIN A WORLD: BAJA. Dodd, 1978. 77 p. $5.95. Grades 5-8

Seven daily visits to the Baja peninsula, its neighbor islands recorded with minimal words, splendid drawings (if only they were in color!); text relates only what is seen, uncluttered with whys or hows; even one perusual will leave reader with an uncanny sense of familiarity with the birds, seals, sea lions, fauna of the area (Wilkes County)

Logue, Jeanne. THE WONDER OF IT ALL. Harper, 1979. 207 p. $8.95. Grades 7-12

Glimpse of possible pitfalls of combining motherhood and a large-animal veterinary practice; readers may be disquieted by author's decision to forsake her

THE WONDER OF IT ALL. (Cont'd.)

profession in order to preserve family harmony; fascinating insights into personalities of animal owners dominate sensitive account of veterinary practice

Lopez, Barry Holstun. OF WOLVES AND MEN. Scribners, 1978. 309 p. $14.95. Grades 10-12

Four distinct views of the wolf: scientific, naturalistic, agricultural, fictional; engrossing, personalized text illustrated with black-and-white photographs; numerous fascinating addenda throughout book provide short literary, scientific, historical tidbits; extensive research has resulted in volume suitable for research, leisure reading; bibliography, index (Wilkes County)

McClung, Robert M. HUNTED MAMMALS OF THE SEA. Morrow, 1978. 191 p. $7.35. Grades 7-12

Comprehensive coverage, sympathetic treatment of sea mammals which are often hunted, exploited by man; mammals discussed, depicted in sensitive pen-and-ink drawings include whales, dolphins, sea cows, sea otters, seals, walruses, polar bears; organized chapters, devoted to specific mammal or group to which it belongs, give historical information, characteristics, breeding habits, conservation efforts; list of common and scientific names, selected bibliography, detailed index provide easy reference

McClung, Robert. PEEPER, FIRST VOICE OF SPRING. Morrow, 1977. unp. $5.49. Grades K-3

Exacting pen-and-ink drawings accompany accurate, interesting study of the life of spring peeper frogs; humane, but unsentimental descriptions draw readers personally into the story; large, readable type spells out excellent account of these familiar frogs and their life in woodland ponds (ASU)

McDearmon, Kay. GORILLAS. Dodd, 1979. 59 p. $4.95. Grades 3-5

Text written for the young reader on African gorillas in the wild, in captivity; albino Snowflake, 46-year-old Massa, Dian Fossey's studies are discussed; descriptions of habitat, range, food, group social structure; establishes new character for gorilla as gentle and shy, not ferocious; well illustrated with black-and-white photographs (Wilkes County)

McGowen, Tom. ALBUM OF SHARKS. Rand, 1977. 60 p. $5.97. Grades 5-6

Introduces great white, hammerhead, mako, tiger, bull, other sharks; text describes physical appearance, characteristics, habits, tells stories about capture, dispels many misconceptions; lush, full-page, color drawings show shark; smaller black-and-white sketches denote scale to other marine life, shark markings; pronunciations given in text for unfamiliar words; weak binding (Caldwell County)

Mackenzie, John P. S. BIRDS IN PERIL: A GUIDE TO THE ENDANGERED BIRDS OF THE UNITED STATES AND CANADA. Dutton, 1977. 192 p. $7.95 paper. Grades 9-12

Somewhat technical account of 20 birds identified as endangered; list includes brown pelican, trumpeter swan, Canada goose, whooping crane, California condor introduction deals with factors that endanger species, current efforts to counter decline in certain bird populations; each species is well illustrated by color drawings, some black-and-white action drawings; text examines physical characteristics, life cycle, nesting behavior, habitat, current status; appended bibliography (Alamance County)

McPhee, Richard B. ROUNDS WITH A COUNTRY VET. Dodd, 1977. 75 p. $6.95. Grades 5-8

Clear, informative, warm story follows George Beneke, country veterinarian, as he makes his rounds treating large animals (cows, horses, pigs); reader becomes well acquainted with emergencies, mundane routine, Beneke's view of animals, his personal philosophy; complete picture coverage in black-and-white photographs of vet's actual work; emotional, yet factual; could be used in life science, vocational education, language arts classes; pictures are not always identified, but are appropriately placed to go along with the text

Malone, Margaret Gay. DOLLY THE DOLPHIN. Messner, 1978. 96 p. $7.29. Grades 3-7

Heartwarming, true story about a dolphin named Dolly who adopted a family in the Florida Keys; numerous scientific facts, results of research on dolphins craftily interspersed with fascinating story line; black-and-white photographs of Dolly, her family complement the entertaining, informative, straightforward text

Malone, Robert. THE ROBOT BOOK. Harcourt, 1978. 159 p. $6.95 paper. Grades 5-12

Absorbing exploration of our long fascination with mechanical men, an analysis of ever-increasing use of automatons in 20th-century culture; focuses on origin of robots, various cultures' perceptions of robots, our interpretation of robots in art and literature, robots of the future; most importantly, text explores our relationships in a mechanized society, thereby helping students cope with complexities of electronic age; useful tool in science classes, philosophy and awareness seminars; of great interest to science fiction buffs, lovers of old movies; superabundance of black-and-white, color illustrations will guarantee frequent selection of this fascinating book

Measures, David G. BRIGHT WINGS OF SUMMER. Prentice. 160 p. $12.95. Grades 10-12

Unique book for highly motivated students with extraordinary interest in nature or art; author began observing butterflies near his English country cottage in order to record their distinguishing traits; erudite, absorbing discourse interspersed with pages of color sketches, handwritten notes; numerous, strikingly beautiful color close-up photographs highlight this special book for a special collection

Mellanby, Kenneth. TALPA: THE STORY OF A MOLE. Collins Pubs., 1977. 76 p. $5.95. Grades 4-8

Amazingly interesting story of the first year in the life of a mole; without being bored, reader will acquire extensive information about life history of moles; black-and-white illustrations are not abundant, but are accurate and artistic; suitable for leisure reading or as science reference book (Wake County)

Mercer, Charles. MONSTERS IN THE EARTH: THE STORY OF EARTHQUAKES. Putnam, 1978. 157 p. $7.95. Grades 8-10

Short, intriguing examination of earthquakes written in style that should capture interest of beginning students; graphic descriptions of actual major quakes introduce basic causes of earthquakes; students learn how earthquakes are measured and studied, while they simultaneously receive vivid lessons from authentic records of various kinds of quakes; black-and-white photographs appear in one small section, leaving the remainder of the book needing illustrations; however, strength of the narrative should sustain most readers' attention (Cumberland County)

Merrill, Margaret W. SKELETONS THAT FIT. Coward, 1978. 63 p. $5.29. Grades 4-6

Evolution of skeletal development in animals resulting from environmental adaptations; chapters devoted to invertebrates, fish, amphibians, reptiles, birds, mammals; matter-of-fact text, black-and-white illustrations; glossary, list of books for further reading (Wake County)

Metos, Thomas H., and Gary G. Bitter. EXPLORING WITH SOLAR ENERGY. Messner, 1978. 64 p. $6.97. Grades 6-12

Adequately presents--in black-and-white, detailed drawings, diagrams, and photographs--apparatus for harnessing solar energy; gives directions, with diagrams, for making similar realia for home experiments; covers many phases of solar use, dating as far back as the 1600's, as well as current usage; acknowledges that such problems as cost must be solved; appealing format has large print, simple vocabulary, numerous black-and-white photographs (Caldwell County)

Michel, Anna. LITTLE WILD CHIMPANZEE. Pantheon, 1978. 47 p. $4.99. Grades K-3

Study of African chimpanzee from birth to maturity; ages of developmental stages not always clear; suggests, but does not elaborate on friendship with baboons; particular emphasis given to skill with tools; expressive black-and-white drawings extend easy-to-read text (Caldwell County)

Michel, Anna. LITTLE WILD ELEPHANT. Pantheon, 1979. 47 p. $4.99. Grades 1-2

Tale of baby elephant's maturation from birth to relative self-sufficiency around four years old; engaging black-and-white drawings; easy-to-read text provides generalized view rather than specific details (Wake County)

Miles, Miska. BEAVER MOON. Described on Fiction Advisory List

Milgrom, Harry. PAPER SCIENCE. Walker & Co., 1978. 47 p. $6.85. Grades 3-6

Delightful, informative book about paper; myriad of simple experiments, described and illustrated, answer such questions as, "What are the sounds of paper?" and "How can paper help clean muddy water?"; this subtle approach offers painless explanations of scientific facts, definitions of terms and encourages independent experimentation; unique index contains questions this book will answer

Mims, Forrest M. III. LASERS: THE INCREDIBLE LIGHT MACHINES. McKay, 1977. 90 p. $6.95. Grades 7-12

Informative history of lasers from conception to actual construction, use; includes illustrated sections on how lasers work, their makeup, principles underlying laser operation; chapters on use of lasers in art, communications, medicine, industry, the military; some discussion of experimentation with possible new form of energy--laser fusion; excellent supplemental reading for junior and senior high (Camp Lejeune)

Mitton, Bruce H. KITES, KITES, KITES: THE UPS AND DOWNS OF MAKING AND FLYING THEM. Drake, 1978. 128 p. $5.95 paper. Grades 6-12

Explicit instructions for building and flying kites; includes thorough list of materials, tools needed for building several different types--from Diamond kites to Conynes; step-by-step instructions along with pictures and diagrams; builder's checklist; flyer's checklist; kite flyers of all ages will find the book useful, informative; bibliography and index (Wilkes County)

Mitton, Jacqueline. ASTRONOMY: AN INTRODUCTION FOR THE AMATEUR ASTRONOMER. Scribners, 1978. 142 p. $7.95. Grades 9-12

Concise, orderly text for beginning astronomy student; scientific, rather than popular or practical approach; introduces student to physical, chemical, optical laws used to study astronomy; suggestions for further reading, reference; precise guide to nearly 100 black-and-white photographs, mathematical diagrams (Wilkes County)

Mitton, Jacqueline and Simon. THE PRENTICE-HALL CONCISE BOOK OF ASTRONOMY. Prentice, 1979. 96 p. $12.95. Grades 8-12

Each pair of pages covers a particular topic utilizing brief, to-the-point, engrossing text, appropriate pictures; topics cover entire spectrum of astronomy--from earth's motion to stars, dust clouds, quasars, origin of universe; excellent guide to the universe amply illustrated with beautiful color photographs, innumerable black-and-white diagrams, drawings (Cumberland County)

Moché, Dinah L. THE ASTRONAUTS. Random, 1978. unp. $3.99. $.95 paper. Grades 2-4

Apollo, Skylab, Space shuttle, blacks, women are all featured in color photographs and drawings which focus on present and future states of space exploration; text clearly intends to encourage serious interests in the field (A Random House Pictureback book)

Moché, Dinah L. THE STAR WARS QUESTION AND ANSWER BOOK ABOUT SPACE. Random, 1979. 61 p. $5.99. Grades 4-6

*Star Wars*, robots, R2-D2 and C-3PO, guide us through this survey of space technology; excellent color photographs, drawings are highly informative; text is elementary in tone, though not in vocabulary; question/answer format, lack of index hinder use as reference tool (Wilkes County)

Moore, Patrick, and David Hardy. THE NEW CHALLENGE OF THE STARS. Rev. ed. Rand, 1977. 63 p. $9.95. Grades 7-12

This factual look at science fiction is dominated by the sheer genius of David Hardy in his brilliant renditions of what outer space may look like; factual text, covering such topics as planets, moons, communications, comets and intergalactic travel, lends credibility; illustrations verge on science fiction, but look realistic; a gem of a book, rich in color and power (Camp Lejeune)

Morrison, Velma Ford. THERE'S ONLY ONE YOU: THE STORY OF HEREDITY. Messner, 1978. 64 p. $6.97. Grades 6-8

Fundamental account of human genetics and heredity; begins with fertilization of reproductive cells, proceeds with accurate account of how characteristics are passed on from generation to generation; topics discussed include chromosomes, DNA, RNA, genes, mutations, evolution, discovery of heredity laws; illustrations and diagrams are spare (Wilkes County)

Moyes, Patricia. HOW TO TALK TO YOUR CAT. Holt, 1978. 118 p. $6.95. Also available from NAL for $1.50 paper. Grades 7-12

Described on Fall 1978 Science Advisory List

Muirden, James. ASTRONOMY WITH BINOCULARS. Crowell, 1979. 156 p. $8.95. Grades 8-12

Another in the growing collection of guides to amateur astronomy; using binoculars is essentially the only variation on the theme; author explains observation techniques for viewing moon, planets, other common nearby features and includes a multitude of tables to aid reader in locating observable phenomena; straightforward text is adequately illustrated; appendices include discussion of astronomical societies, publications, detailed index (Cumberland County)

Murphy, Jim. WEIRD AND WACKY INVENTIONS. Crown, 1978. unp. $7.95. Grades 3-5

Drawings and descriptions of odd inventions registered by U.S. Patent and Trademark Office; brief, suggestive descriptions invite reader to guess use; following page provides additional information, actual function; used chewing gum receptacle, bird diaper, portable bathtubs are among many ideas shown; illustrated with reproductions of original drawings (Wilkes County)

Navarra, John Gabriel. SUPERPLANES. Doubleday, 1979. 79 p. $7.90. Grades 5-8

Brief, cursory discussion of commercial, military, special aircraft used throughout modern world; scantily describes the design, use of these various planes; colorful binding, multitude of black-and-white photographs (inconveniently identified in narration and in back of book) will appeal to readers; second-purchase recommendation (Wilkes County)

Nixon, Hershell H., and Joan Lowery Nixon. VOLCANOES: NATURE'S FIREWORKS. Dodd, 1978. 48 p. $4.95. Grades 4-6

Colorless, factual approach to world of volcanoes; easy-to-read sections organized around such topics as eruptions, effects of eruptions, famous volcanoes, usefulness of volcanoes; accompanying black-and-white photographs are descriptive, graphic, clear; simple index appended (Camp Lejeune)

Nussbaum, Hedda. PLANTS DO AMAZING THINGS. Random, 1977. 69 p. $3.99. Grades 1-4

Captivating, informative, colorful discussion of odd and unusual habits of plants--e.g., mangrove trees walk, fig trees strangle other trees; describes how plants make food, move, give off light, grow; large print, playful, instructive illustrations, pronunciations of unfamiliar words in text; enticing format will provide fuel for many a report and display (Caldwell County)

O'Donnell, James J. GOLD: THE NOBLE METAL. Messner, 1978. 157 p. $7.29. Grades 8-12

Informative book covers every facet of gold--from its origin and mining to history of man's efforts to acquire the precious metal; interesting narrative is accurate and readable, but lack of illustrations detracts greatly from its appeal for younger readers; valuable glossary, bibliography included (Cumberland County)

Ordish, George. THE YEAR OF THE ANT. Scribners, 1978. 139 p. $9.95. Grades 9-12

Sparsely illustrated tale of ant life stars Labora, worker ant turned-deputy queen; imagination, scientific accuracy skillfully blended in this fascinating account of individual and nest behavior; encompasses wealth of detail about structure, habits; valuable science or nature study for students with scientific inclinations

Oxford Scientific Films. BEES AND HONEY. Putnam, 1977. unp. $5.95. Grades 3-6

High-quality, close-up color photographs vividly picture honeybees' life cycle; after six-page discussion, full-page captioned pictures show honeycomb, eggs, bees' collecting pollen and honey, the Round Dance; interesting, attractive supplement to science study

Oxford Scientific Films. THE BUTTERFLY CYCLE. Putnam, 1977. unp. $5.95. Grades 3-6

Exquisitely photographed, pictorial representation of butterfly cycle--from egg, to caterpillar's emergence, to pupa formation, to butterfly's appearance; four-page prose discussion precedes full-page color photographs which distinctly depict stages; beautiful, instructive addition to science shelf

Oxford Scientific Films. THE STICKLEBACK CYCLE. Putnam, 1979. unp. $6.95. Grades 3-6

Four-page, detailed, scientific discussion of stickleback's life cycle followed by full-page colored photographs with one-line captions; photographs show mating, egg fertilization, nest guarding behavior of male; helpful in building interest in biology or as supplementary material for less capable reader (Wake County)

Paige, David. BEHIND THE SCENES AT THE AQUARIUM. Whitman, 1979. 48 p. $5.21. Grades 4-8

Describes operations of aquariums with specific references to the Shedd Aquarium of Chicago; collecting, displaying, maintaining exhibits of specimens freely illustrated with black-and-white, color photographs; straightforward, factual text; glossary and index (Wilkes County)

Paige, David. BEHIND THE SCENES AT THE ZOO. Whitman, 1978. 48 p. $4.69. Grades 4-7

Describes development and maintenance of a zoo, including animal selection, habitat simulation, nocturnal provisions, safety; using Lincoln Park Zoo in Chicago and San Diego Zoo as examples, author discusses activities of zoo keepers and veterinarians; abundantly illustrated with photographs, many in color; extensive glossary (Wake County)

Patent, Dorothy Hinshaw. BUTTERFLIES AND MOTHS: HOW THEY FUNCTION. Holiday, 1979. 160 p. $7.95. Grades 7-10

Examines behavior patterns, anatomical and physiological changes of numerous groups of butterflies; details presented in easy reading style; appropriate for enrichment, but not in-depth study; contains few black-and-white photographs; additional drawings are fair; includes helpful reading list, glossary, index (Alamance County)

Patent, Dorothy Hinshaw. EVOLUTION GOES ON EVERY DAY. Holiday, 1977. 156 p. $6.95. Grades 11-12

Overview of current understandings in genetic research, beginning with explanation of evolution by natural selection, concluding with brief observations about genetic engineering and cloning; concrete examples drawn from nature and laboratory research; presumes understanding of evolutionary processes, some knowledge of technical terms; valuable resource for science teacher, suggesting ways in which evolutionary concepts can be illustrated; supplemented by excellent black-and-white drawings, reading list, glossary

Patent, Dorothy Hinshaw. SIZES AND SHAPES IN NATURE--WHAT THEY MEAN. Holiday, 1979. 160 p. $7.95. Grades 7-12

Excellent examination of role of plant and animal morphology (structure); relates structure to habitat, locomotion, feeding, communication, reproduction; easy reading style, accessibility of information make text useful for enrichment or reference; some black-and-white photographs, illustrations; index, extensive suggested reading list included (Alamance County)

Patent, Dorothy Hinshaw. THE WORLD OF WORMS. Holiday, 1978. 124 p. $6.95. Grades 7-12

Systematized collection of accurate information about different kinds of segmented worms; black-and-white photographs, line drawings scattered throughout text, not always where they are needed; concise glossary, suggested readings, complete index empower easy reference

Pilkey, Orrin H., Jr., et al. FROM CURRITUCK TO CALABASH: LIVING WITH NORTH CAROLINA'S BARRIER ISLANDS. N.E.R., 1978. 228 p. $3.95 paper. Grades 11-12

A look at North Carolina's barrier islands from history of their development to current geological dynamics and problems of shoreline engineering; considers construction problems for each island community; final chapters deal with land-use laws and hurricane resistant construction; extensive appendices include hurricane checklist, agency list, bibliography of publications, two automobile field trip guides; lucid text abundantly illustrated with diagrams, maps, photographs (Cumberland County)

Prince, J. H. PLANTS THAT EAT ANIMALS. Elsevier/Nelson, 1979. 92 p. $7.95. Grades 11-12

Concise, lucid discussion of carnivorous plants including Venus's-flytrap, pitcher plant, sundew, butterwort, bladderwort; introductory chapter explains classification process, distinctions used in book; includes glossary of terms, list of scientific names (exponentially noted in body of text); advanced biology student will appreciate author's expert instructions on home growing of carnivorous plants illustrated with black-and-white photographs, drawings, diagrams (Wilkes County)

Rahn, Joan Elma. SEVEN WAYS TO COLLECT PLANTS. Atheneum, 1978. 83 p. $5.95. Grades 4-7

Simple, informative source book, written in conversational tone, suggests ways of collecting, preserving, displaying plants; collection techniques--such as making ink prints, using xerography, pressing, drying, photographing--are accompanied by step-by-step diagrams which illustrate methods; introduction cautions students about picking endangered plants and lists several books to aid in identification of plants; sure to encourage active participating (Camp Lejeune)

Rahn, Joan Elma. WATCH IT GROW, WATCH IT CHANGE. Atheneum, 1978. 88 p. $6.95. Grades 4-7

In diary form, giving dates and illustrating with line drawings, author presents opening and development of a leaf bud of lilac, development of apple bud through flower and fruit to seeds, opening of buds on sunchoke tuber through formation of new tuber, germinating of squash, pea seeds; casual format, nontechnical style, brief index should encourage young reader doing limited research

Rau, Margaret. THE GRAY KANGAROO AT HOME. Knopf, 1978. 90 p. $5.99. Grades 5-6

Precise, richly detailed account of a year in the life of a forester kangaroo doe in Australia; realistically describes birth of a joey, rearing of the young, breeding

THE GRAY KANGAROO AT HOME. (Cont'd.)

cycle, seasonal migration, encounters with natural enemies; author's familiarity with Australia, extensive research, specifics about forester's environment, use of present tense create sense of immediacy; Prologue, Epilogue provide valuable background information about setting, kangaroo evolution, survival problems; general format, bibliography, index contribute to usefulness, enrichment (Wake County)

Renner, Al G. EXPERIMENTAL FUN WITH THE YO-YO AND OTHER SCIENCE PROJECTS. Dodd, 1979. 128 p. $5.95. Grades 3-7

First third of book emphasizes scientific process by explaining purposes, steps in performing experiments; suggests tests involving size, shape, structure of yo-yos; rest of book provides instructions for building, experimenting with longtime favorite toys, such as sailboats, Cartesian divers, a variety of gliders; light-hearted drawings clearly illustrate instructions (Wilkes County)

Rensberger, Boyce. THE CULT OF THE WILD. Anchor, 1977. 267 p. $2.95 paper. Grades 9-12

Interesting, informative book exploring origin, inaccuracies of many myths associated with wild animals; such behavior patterns as murder, conversation, hunting are detailed; lions, sharks, crocodiles among ten species discussed; should be popular with biology, wildlife, or anthropology enthusiasts (Alamance County)

Riedman, Sarah R. ALLERGIES. Watts, 1978. 63 p. $4.90. Grades 4-8

Thorough introductory treatment of significant information about allergies; citing specific cases, author describes such allergic reactions as rhinitis, hay fever, rashes, swelling and includes brief discussion of allergists, tests, treatment; logical organization, straightforward style, bold type, black-and-white photographs will keep reader's attention; appended glossary, reading list, index allow for easy research (Caldwell County)

Riedman, Sarah R. HAVE YOU EVER SEEN A SHELL WALKING? ODD HABITATS OF AQUATIC ANIMALS. McKay, 1978. 52 p. $6.95. Grades 4-7

Simplified, but informative account of life, habits of hermit crabs, tubeworms, barnacles, sponges, muskrats, penguins; empahsizes unique methods these creatures display in their selection of a home; text, vividly illustrated by black-and-white photographs and diagrams, is divided into short chapters written in large print; useful for elementary, beginning biological studies (Alamance County)

Rinzler, Carol Ann. THE DICTIONARY OF MEDICAL FOLKLORE. Crowell, 1979. 243 p. $10. Grades 10-12

Fascinating book provides answers to most common sayings, beliefs, folktales about our health and medical care; matter-of-fact, practical, well-presented; brief and readable enough to move reader rapidly and thus maintain his interest; several sex-related myths about contraception, masturbation, virginity are discussed in totally straightforward manner (Cumberland County)

Roberts, Estelle, et al., comps. and eds. THE HORSE WORLD CATALOG. Lippincott, 1977. 159 p. $6.95 paper. Grades 7-10

Reliable guide containing facts, history, directions for training and caring for horses; also includes information on breeding, showing, grooming, stables, horsemanship, clothes, birth of a foal; interspersed are puzzles, notes of interest, definitions, facts, synopses of other reference books; plentiful black-and-white

THE HORSE WORLD CATALOG. (Cont'd.)

photographs, diagrams, magazine-size print create busy, but appealing format; inclusion of occasional advertisements may offend some, but may aid others who want addresses for commercial suppliers (Caldwell County)

Robison, Bruce H. LURKERS OF THE DEEP: LIFE WITHIN THE OCEAN DEPTHS. McKay, 1978. 90 p. $6.95. Grades 6-10

With the study of marine science growing tremendously in North Carolina, this book is appropriate for science programs in many North Carolina schools; it addresses in some depth the usual topic of oceanic bottom dwellers; interesting, well-organized text illustrated by myriad of black-and-white photographs; brief index will be of limited use; writer has taken some liberties for sake of simplicity

Rockwell, Jane. WOLVES. Watts, 1977. 61 p. $4.47. Grades 5-7

Compassionate treatment of the wolf--his life habits, history, struggle for survival; simple, pleasant style presents plethora of information in few words; black-and-white illustrations appealingly depict wolf habits, characteristics, cubs; interesting, informative plea for understanding the wolf; brief bibliography, index appropriate for recommended level (Wake County)

Roever, J. M. SNAKE SECRETS. Walker & Co., 1979. 155 p. $7.85. Grades 7-12

Exhaustive coverage of snake ecology, biology divided into three sections; part one, which discusses snake "secrets," includes information on snake lore, protection mechanisms, skins, mating; part two discusses how to capture, care for pet snake, while part three confronts such issues as dissection, snakebites, checklists of snakes; sketches, line drawings accompany compendious text best used for research (Cumberland County)

Rood, Ronald. POSSUM IN THE PARKING LOT. S&S, 1977. 252 p. $8.95. Grades 9-12

Chatty discussion of wildlife in the city--"those living things that struggle to keep up with us, poking brave green leaves out of old auto tires, and peering soberly from the tops of garbage cans"; each chapter, endowed with a "catchy" title, lovingly alludes to forms of wildlife which have survived man's control (even on NCSU campus); author's style, unusual approach will appeal to ecology-minded, those looking for science report information (Wake County)

Ross, Frank, Jr. ANTIQUE CAR MODELS: THEIR STORIES AND HOW TO MAKE THEM. Lothrop, 1978. 192 p. $7.35. Grades 6-12

Remarkably details the construction of four model cars--Curved Dash Olds, Waverley Stanhope Electric, Stanley Steamer, 1915 Chevrolet--utilizing such simple materials as construction paper, cardboard, straws, matchsticks; clear instructions accompanied by numerous black-and-white illustrations, patterns; background information, construction hints given for each car; model car enthusiasts, project-oriented students will enjoy, learn from this source; systematized format, including concise glossary, brief list of further readings, index (Alamance County)

Ross, Frank, Jr. THE SPACE SHUTTLE: ITS STORY AND HOW TO MAKE A FLYING PAPER MODEL. Lothrop, 1979. 128 p. $6.24. Grades 7-12

Clear-cut technical description of the Space Shuttle, a combined spacecraft and airplane; narrative extends from Shuttle's history, development to its construction, development, launch, return to earth; appeal limited to students interested in technical look at space program; many black-and-white photographs, drawings enhance explanations, instructions for making model shuttle; appended information includes glossary, index, reading list, milestones in space exploration

Ross, Wilda. THE RAIN FOREST: WHAT LIVES THERE. Coward, 1977. 32 p. $5.29. Grades 1-3

Splendid introduction to plants and animals which abound in tropical rain forest; author explains plant composition of forest, describes animals that inhabit buttressed trees, viney surroundings--geckgo, monkeys, floor-living creatures, decomposers that help in recycling nutrients to giraffe-cousin, okapi; gray illustrations, occasionally tinted with deep green, give impression of tropical rain forest; simple, easy-to-use glossary, index (Camp Lejeune)

Russell, Andy. ANDY RUSSELL'S ADVENTURES WITH WILD ANIMALS. Knopf, 1977. 176 p. $8.95. Grades 9-12

Entertaining, informative collection of five short stories detailing realistic struggles for survival of an elk, grizzly, otter, cougar, horned owl; gentle style creates exciting narrative that nature lovers, animal enthusiasts will enjoy; stories contain factual information about animals' life styles, traits, while use of personification enlivens experiences; for enrichment, leisure reading (Alamance County)

Russell, Solveig Paulson. THE BIG DITCH WATERWAYS: THE STORY OF CANALS. parents, 1977. 64 p. $5.41. Grades 2-5

Surveys importance of man-made waterways for transportation, drainage, irrigation; tells basic story of Erie, Suez, Panama, St. Lawrence Seaway, others; numerous maps show route of each canal; pleasing, two-color drawings suggest time period, geographic conditions but do not adequately illustrate lock mechanics; comprehensive index with cross-referencing; understandable resource book for young readers (Alexander County)

Ryden, Hope. THE LITTLE DEER OF THE FLORIDA KEYS. Putnam, 1978. 64 p. $7.95. Grades 6-12

Story-like account of key deer, "small deer no bigger than a large dog," that is native to Florida keys; enchanting photographs, comfortable prose style unfold tale of key deer's life habits, its near extinction, its comeback; for conservationists, animal lovers, students in search of stirring report topic (Wake County)

Ryder, Joanne. FIREFLIES. Harper, 1977. 61 p. $4.79. Grades 2-4

Simple narrative, accompanied by boldly colored drawings, honestly explains firefly's two-year life cycle--from egg to larva/glowworm, to pupa, to firefly; describes insect's use of light as mating call, subtly demonstrates mating technique; large print, attractive format, interesting content will invite readers (Camp Lejeune)

Sabin, Francene and Louis. PERFECT PETS. Putnam, 1978. 127 p. $7.95. Grades 5-9

Detailed text explores suitability of various small animals as pets: from insects to small mammals and reptiles; special care, feeding, possible problems, common misconceptions analyzed; text reads easily, holds attention of reader; some inconsistencies appear in text (e.g., list of poisonous snakes in U.S. does not mention copperhead; gerbils listed as good parents, but experience has been that they are sometimes cannibalistic); index; black-and-white photographs; useful as resource book for animal study, for independent browsing (Wake County)

Sagan, Carl, et al. MURMURS OF EARTH: VOYAGER INTERSTELLAR RECORD. Random, 1978. 273 p. $15. Grades 9-12

Provides detailed account of selection process, development, ultimate content of information capsule (for examination by possible extraterrestial life)

MURMURS OF EARTH: VOYAGER INTERSTELLAR RECORD. (Cont'd.)

contained on the Voyager spacecraft; historical overview of time capsules, specifics of Voyager record's contents; one frontal photograph of nude man and woman appropriate in context; interesting, informative text with reproductions of color photographs used in mission; useful as high-interest resource book (Alamance County)

Samson, John G. THE POND. Knopf, 1979. 134 p. $7.99. Grades 6-8

Thoughtful work details seasonal activities of many animals in and around a pond; concepts, terms presented in entertaining, narrative style; many passages appropriate for reading aloud; pleasant black-and-white marginal drawings decorate most pages; excellent annotated bibliography; nature of index, format limit use as reference tool (Alamance County)

Sarnoff, Jane, and Reynold Ruffins. SPACE: A FACT AND RIDDLE BOOK. Scribners, 1978. 32 p. $8.95. Grades 4-6

Pages of factual information faced with colorfully illustrated pages of related riddles; up-to-date facts about sun, meteors, planets, space stations; some oversimplification may lead readers to accept as fact theories still in speculative stage (Wilkes County)

Sattler, Helen R. NATURE'S WEATHER FORECASTERS. Elsevier/Nelson, 1978. 158 p. $6.95. Grades 4-7

Easy-to-read anecdotes and rhymes about signals of nature indicating weather changes; beginning with stories of animals and weather, author details behavioral signs that foretell coming of storms, changes in humidity, temperature; wind and sky indications discussed and illustrated; appropriate for research or leisure (Cumberland County)

Schlein, Miriam. ON THE TRACK OF THE MYSTERY ANIMAL: THE STORY OF THE DISCOVERY OF THE OKAPI. Four Winds, 1978. 58 p. $6.95. Grades 4-10

Real-life detective story charts Sir Henry Johnston's search for elusive okapi; with help of central African pygmies, he was first white man to observe, classify this mysterious member of Giraffidae family; tale provides fascinating insight into scientific inquiry; introduces specialized vocabulary, concepts; final chapter gives description of okapi's habits, characteristics; excellent pen-and-ink drawings set jungle scenes (Caldwell County)

Scott, Jack Denton. CITY OF BIRDS AND BEASTS: BEHIND THE SCENES AT THE BRONX ZOO. Putnam, 1978. 120 p. $8.95. Grades 5-10

Candid observation of various facets of world of animals, life in zoo; readers will find themselves anxious to continue reading vignettes which depict everyday activities of zoo's workers, inhabitants; readable text supplemented with sharp black-and-white photographs that establish animals as characters (Cumberland County)

Scott, Jack Denton. DISCOVERING THE MYSTERIOUS EGRET. Harcourt, 1978. 56 p. $7.95. Grades 6-10

Fascinating discussion of cattle egret, its appearing thousands of miles away from its original home, Africa; brief description of scientists' and photographers' excitement over this phenomenon; detailed explanation of egret's courtship ritual, mating response, rapid adaptation to new surroundings, ecological relations; black-and-white photographs, chalk drawings illuminate text

Scott, Jack Denton. ISLAND OF WILD HORSES. Putnam, 1978. 61 p. $7.95. Grades 5-10

Analyzes many theories of wild horses' origin on Virginia's barrier islands; physical characteristics, habits which have encouraged self-preservation described in print and in large, clear black-and-white photographs; weighs pros and cons of human intervention in islands' natural balance; high interest appeal for history and ecology buffs (Caldwell County)

Selsam, Millicent E. LAND OF THE GIANT TORTOISE: THE STORY OF THE GALÁPAGOS. Four Winds, 1977. 55 p. $7.95. Grades 4-8

Magnetic appeal of eerie flora, fauna of Galápagos Islands emanates from this easy-to-read book that sketches theories of how life therein and islands themselves came to be; crisp, breathtaking, sensitive color photographs depict text's smooth flowing, often picturesque descriptions; equally sharp, dramatic black-and-white photographs are skillfully chosen, arranged, captioned; recommended for science collection and/or individual research (Shelby City)

Selsam, Millicent E., and Jerome Wexler. MIMOSA: THE SENSITIVE PLANT. Morrow, 1978. 48 p. $6.67. Grades 5-8

Brief description of some other plants with moving parts introduces detailed portrayal of unusually sensitive mimosa plant; Selsam's dependable scientific text combines with Wexler's superb black-and-white, color photography to create a study suitable for classroom use or browsing (Wake County)

Selsam, Millicent E. SEA MONSTERS OF LONG AGO. Four Winds, 1977. unp. $5.95. Grades 2-6

Brief, selective introduction to early sea life of the dinosaur age; simple, easily understood, interesting text describes how a picture is constructed through bones and fossils; short descriptions include pronunciations; size comparisons with items familiar to young readers: "a two-story neck" and "four automobiles long"; two-page drawings, vividly colored, flow effectively into clear areas for print; excellent introduction to early sea reptiles for young readers; good general interest browse book (Caldwell County)

Selsam, Millicent. TYRANNOSAURUS REX. Harper, 1978. 41 p. $5.79. Grades 3-6

Faithfully traces steps from unearthing fossilized skeleton of Tyrannosaurus rex to its display in a museum, utilizing black-and-white photographs to illustrate process; contains general information on lives of dinosaurs, raises questions about dinosaurs' extinction; bibliography, short index appended; subject matter, pictures, manageable text will hold reader's interest

Selsam, Millicent. UP, DOWN AND AROUND: THE FORCE OF GRAVITY. Doubleday, 1977. 47 p. $6.90. Grades 2-6

Well-organized, sequenced discussion of gravity--the earth's, the moon's, the sun's; includes explanation of rocket orbits, weightlessness, concept of "up" and "down" in China and in U.S.; illustrated with large, full-page pen-and-wash drawings; short, uncomplicated sentences use appropriate, but non-technical vocabulary (Camp Lejeune)

Shapiro, Irwin. DARWIN AND THE ENCHANTED ISLES. Coward, 1977. 78 p. $4.99. Grades 4-6

Described on Fall 1978 Biography Advisory List

Shapiro, Irwin. THE GIFT OF MAGIC SLEEP: EARLY EXPERIMENTS IN ANESTHESIA. Coward, 1979. 64 p. $5.49. Grades 4-7

Enlightening account of mid-nineteenth century discoveries of early anesthetics; presents easy-to-follow biographical sketches, discusses struggles and successes of physicians Morton, Wells, Jackson, and Long who experimented with laughing gas and ether, concludes with stories of their tragic deaths; full-page black-and-white illustrations; for review of scientific inventions or for browsing

Shart, Nicholas M. et al. MISSION TO EARTH: LANDSAT VIEWS THE WORLD. NASA, 1976. (Available from Supt. of Doc.) 459 p. $14. Grades 8-12

Contains the best of Landsat's four years of satellite photography; describes how Landsat photographs are used for various purposes, such as land use, mapping, geology, crop assessment, water resources analysis; one-third of study features U.S., while remainder illustrates special features around globe; more than ninety percent of the photographs are in color, every image accompanied by concise description of the features shown; appendices contain description of the satellite system, glossary of technical terms, index of plates; high school disciplines should find book most valuable as a reference and resource; beautiful volume (Cumberland County)

Sherman, Geraldine. ANIMALS WITH POUCHES: THE MARSUPIALS. Holiday, 1978. 36 p. $5.95. Grades 1-5

Scientific report of 17 marsupials: their birth, pouch life, survival habits; author's use of vivid detail creates high-interest reading--e.g., numbat's sticky tongue catches termites, koala bear's only diet is eucalyptus leaves, dunnart stores food in fat tail; black-and-white illustrations do not show pouches, but do show animals in natural habitats; motivational tool for group projects, individual research, animal unit

Shortt, Terence Michael. WILD BIRDS OF THE AMERICAS. Dutton, 1977. 272 p. $8.95 paper. Grades 9-12

Reference book lists 94 species of North American wild birds; brief discussion, accompanied by excellent full-color and black-and-white drawings, depicts life activities of birds in their natural habitat; factual information is accurate, often sketchy; written in an interesting style for the novice; useful for identification and general information, not as a field guide (Alamance County)

Shostak, Stanley. THE HYDRA. Coward, 1977. 47 p. $5.96. Grades 6-10

Hydras, small aquatic organisms related to jellyfish and coral, are studied for their many unique capabilities--most significantly, regeneration and turnover, currently being investigated by cancer researchers; description of possible home or school experiments expands general explanation; drawings and photomicrographs complete this fascinating, lucid account (Camp Lejeune)

Showers, Paul. ME AND MY FAMILY TREE. Crowell, 1978. 33 p. $6.79. Grades 1-5

Highly readable narrative introduces young readers to concepts of heredity, family traits, ancestors through personal story of one young girl; humorous illustrations will capture young imaginations, encourage students to construct their own family trees; Mendel's work explained especially well for beginning geneticist; variations in print size, format add appeal; for individual use, teacher use with small group (Wake County)

Siegal, Mordecai. THE GOOD DOG BOOK: LOVING CARE. NAL, 1977. 260 p. $2.25 paper. Grades 9-12

Factual, often funny and entertaining, coverage of pet care topics that range from puppy care to vet selection, major illnesses and their symptoms; specific

THE GOOD DOG BOOK: LOVING CARE. (Cont'd.)

information, suggestions offered concerning how children, adults, other dogs affect dog behavior; abundance of information on many topics; small print and few pictures (Alamance County)

Sigford, Ann E. TALL GRASS AND TROUBLE: A STORY OF ENVIRONMENTAL ACTION. Dillon, 1978. 104 p. $5.95. Grades 6-12

Historical perspective of changes which have occurred on prairie of North America since before and after last Ice Age; discusses animal tactics, plant adaptations required for survival; also considers changes caused by man's entrance into grassland area; black-and-white, color illustrations enhance text; notes, glossary, index provide easy reference

Silverstein, Alvin, and Virginia B. Silverstein. ITCH, SNIFFLE AND SNEEZE: ALL ABOUT ASTHMA, HAY FEVER AND OTHER ALLERGIES. Four Winds, 1978. unp. $6.95. Grades 4-6

Examination of causes, possible cures for allergies to foods, plants, atmospheric conditions; matter-of-fact tone offers practical suggestions for prevention, coping; illustrated with amusing, enlightening cartoons by Roy Doty (Camp Lejeune)

Silverstein, Alvin, and Virginia B. Silverstein. THE LEFT-HANDER'S WORLD. Follett, 1977. 96 p. $5.97. Grades 7-12

Peculiar phenomenon of handedness discussed from environmental, genetic standpoint; notes instances in nature including snails, flat fish, plants; in-depth treatment of left brain, right brain relation to verbal, spacial ability; describes extensive research findings in terms understandable to high school students; illustrated with numerous black-and-white photographs; lists famous left-handers, such as Babe Ruth, Michelangelo, Jimmy Connors, Harry Truman; also provides addresses of organizations, mail order houses for left-handers; suggested for psychology as well as life science units (Camp Lejeune)

Simon, Hilda. THE DATE PALM: BREAD OF THE DESERT. Dodd, 1978. 158 p. $8.95. Grades 7-12

Importance of the date palm dates back to ancient Assyrians, possibly before; this book chronicles Henry Simon's travels in North Africa, collection of palms to be transplanted, ultimate establishment of still-functioning plantation in Southern California; author has added her own drawings to accompany tinted photographs taken by her father; text is of limited interest but does provide personal glimpses of Arab life in early twentieth century, detailed study of California desert (Camp Lejeune)

Simon, Seymour. DANGER FROM BELOW: EARTHQUAKES PAST, PRESENT, AND FUTURE. Four Winds, 1979. 86 p. $7.95. Grades 4-6

After brief history of past earthquakes, author discusses causes, locations, Richter Scale of magnitudes, advances in predictions, basic survival rules; simplified text with black-and-white maps, photographs, charts (Wilkes County)

Simon, Seymour. DISCOVERING WHAT PUPPIES DO. McGraw, 1977. 40 p. $5.72. Grades 3-6

Easy-going introduction for kids on puppy care, from the first night home to house training; charcoal drawings, which identify several breeds, make this a good introductory approach for young dog owners; chapter on dog's keen senses, communicating techniques are particularly helpful for first-time puppy owners; added hints on pet care and feeding; suggested for more responsible students (Camp Lejeune)

Simon, Seymour. EXPLORING FIELDS AND LOTS: EASY SCIENCE PROJECTS. Garrard, 1978. 64 p. $4.48. Grades 2-4

Introduction to scientific exploring through observation of neighborhood environment; realistic suggestions for maintaining scientific journals; simple experiments (e.g., creating a grass terrarium) provide objectives, materials needed, explanation of probable results; easy-to-read text accompanied by explanatory illustrations (Camp Lejeune)

Simon, Seymour. LET'S TRY IT OUT: ABOUT YOUR LUNGS. McGraw, 1978. 35 p. $6.95. Grades 2-4

Anatomy and physiology of respiration presented on elementary level in straightforward, accurate manner; practical activities suggested; imaginative illustrations combine good, but unlabeled, anatomical sketches with pictures of appropriately active people; suitable as science reader for class or as extra-reading book (Wake County)

Simon, Seymour. LOOK TO THE NIGHT SKY: AN INTRODUCTION TO STAR WATCHING. Viking, 1977. 87 p. $6.95. Also available from Puffin for $2.95 paper. Grades 3-6

Friendly introduction to star-watching, delving deeply enough for an aspiring young astronomer, yet so carefully organized as to permit omission of parts by reader who is content to locate familiar stars, constellations; more than a "how to" book, text blends myth and astrology; several topics may motivate individual projects; appendix includes list of astrological characteristics, suggestions for further reading (Shelby City)

Simon, Seymour. MEET THE GIANT SNAKES. Walker & Co., 1979. 47 p. $8.85. Grades 3-6

Six giant constrictors (boas and pythons) examined in detail as to coloration, feeding, habitat, aggressive behavior, enemies; final chapter cites some exaggerated legends; full-page black-and-white illustrations capture enormous size (Wake County)

Simon, Seymour. THE SECRET CLOCKS: TIME SENSES OF LIVING THINGS. Viking, 1979. 74 p. $8.95. Grades 6-8

Excellent introductory work concerning how animals use their biological clocks for such life activities as migration, feeding, reproduction; also contains information on biorhythms, constructing a biorhythm chart, activities to test and observe biological clocks of animals, plants; high interest information presented in easy style supplemented by black-and-white drawings, illustrations (Alamance County)

Skurzynski, Gloria. BIONIC PARTS FOR PEOPLE: THE REAL STORY OF ARTIFICIAL ORGANS AND REPLACEMENT PARTS. Four Winds, 1978. 147 p. $7.95. Grades 10-12

Engrossing, provocative examination of bionic medicine; written with the student in mind, each chapter contains three basic divisions; first section usually gives historical description of problem, efforts toward correction; second division describes body component's operation; third section details functioning of artificial replacement; discriminating treatment of bionic kidneys, eyes, ears, hearts, arms, legs, along with biomedical materials, total artificial parts picture; clearly written text illustrated by appropriate photographs, drawings (Cumberland County)

Smith, Howard E., Jr. THE ANIMAL OLYMPICS. Doubleday, 1979. 48 p. $8.90 Grades 4-6

Highly informative, entertaining tale fantasizes about an Olympic competition in which humans and animals compete in appropriate events; only occasionally does a

THE ANIMAL OLYMPICS. (Cont'd.)

human win the gold medal; times, speeds, distances are cited for winners; well-written, easily read format complemented with humorous illustrations; useful for developing charts, graphs; no list of reference sources, index (Wake County)

Smith, Norman F. THE INSIDE STORY OF METAL. Messner, 1977. 191 p. $7.79. Grades 9-12

Concise introduction to world of metals traces development of metal as useful tool, discusses properties and uses, environmental concerns; clear text uses simple diagrams, lists to offer added insight; skillful use of black-and-white photographs adds to value of this most useful addition to technology collection in most libraries (Cumberland County)

Smith, Norman F. MOONHOPPING THROUGH OUR SOLAR SYSTEM. Coward, 1977. 46 p. $4.97. Grades 2-4

Imaginary trip to the moons, not of Earth but of other planets; traveling in our space ship, we see planets without moons, so we pass these, merely making observations; we stop on moons of other planets, noting composition and gravity, finally returning to more hospitable earth; this cursory glance at our solar system, illustrated with full-page, three-color drawings, gives feeling for unexplored but not terrifying landscapes (Camp Lejeune)

Sobol, Harriet Langsam. PETE'S HOUSE. Macmillan, 1978. 58 p. $7.95. Grades 3-6

Photographic essay on building a house, seen through eyes of little boy named Pete; good black-and-white photographs show various stages of construction: from laying of foundations to carpenters' putting up walls, masons' bricking chimney, to painters', plumbers', electricians' doing their jobs; easy-to-read, one-half page text accompanies most photographs (Camp Lejeune)

Stambler, Irwin. NEW AUTOMOBILES OF THE FUTURE. Putnam, 1978. 128 p. $7.95. Grades 8-12

Timely, factual book deals with automobile designs of future; good discussions of currently faced engineering problems with such engines as gas turbine, Stirling, internal and continuous combustion; future designs utilizing hydrogen, flywheels, electronics are explored; useful to students interested in automobiles or for research about energy problems; good illustrations and drawings (Alamance County)

Steiner, Barbara. BIOGRAPHY OF A BENGAL TIGER. Putnam, 1979. 63 p. $5.89. Grades 3-5

Fictionalized version of life of a mother Bengal tigress and her three cubs; plot describes birth, stalking food, encounters with danger (cobra, wild pig, flooding river), return of tigress's mate; large print and well-written story provide many interesting facts about tiger's life; content of busy line drawings sometimes difficult to grasp; best suited for teacher's oral reading and discussion; author's note provides additional facts (Wake County)

Steiner, Barbara. BIOGRAPHY OF A KANGAROO RAT. Putnam, 1977. 63 p. $4.97. Grades 2-4

Tender story about first year in life of Dipo as he sleeps, eats, protects his burrow, finally mates; factual depiction of many close brushes with death as inherent in fiercely competitive environment of the desert; delightful section on courtship games, dances; lively charcoal drawings; easy-to-read text; author's note provides additional factual details (Camp Lejeune)

Steiner, Barbara. BIOGRAPHY OF A KILLER WHALE. Putnam, 1978. 62 p. $5.49. Grades 3-5

Entertaining narrative description of life of Karok, a killer whale, from birth to maturity; told from whale's point of view, text includes many scientific facts and information about whale's role in oceanic balance of life; black-and-white drawings shaded with blue adequately depict simple story line; accurate presentation of animals' social orders, predator-prey relationships

Stevens, Carla. INSECT PETS: CATCHING AND CARING FOR THEM. Greenwillow, 1978. 96 p. $5.49. Grades 1-3

Feeding habits, life cycles described for many common insects that can be kept as pets; appropriate containers described for housing an insect zoo; catching and caring tips given for crickets, ladybugs, fireflies, ant lions; should motivate children to get outside, collect and care for these cheap pets, increase their skills of observation and inquiry; excellent activity for primary grades; illustrated with attractive, realistic drawings ( Camp Lejeune)

Strong, Arlene. VETERINARIAN, DOCTOR FOR YOUR PET. Atheneum, 1977. 44 p. $5.95. Grades 3-6

Shows procedures and routines in vet's office so as to allay fears of pet owners--gives students good idea about what care and attention their pets should receive; useful source book on how to keep pets healthy; excellent, clear, black-and-white photographs (especially of cats) add warmth and interest; practical glossary of vet terms included (Camp Lejeune)

Swift, David. ANIMAL TRAVELERS. Greenwillow, 1977. 56 p. $5.21. Grades K-3

Aperitif for budding naturalists treats periodic migrations of selected animal species; reader accompanies herd of caribou from tundra to forest, joins barn swallow flock on its southern journey, chases painted lady butterflies from South to ice of far North, follows gray whales on their southern pilgrimage; profusely illustrated with colorful drawings, accurately drawn maps; "blank verse" text is less than excellent; few line of print are not terminated by punctuation, giving text a staccato effect (Shelby City)

Taylor, Valerie and Ron, eds., with Peter Goadby. GREAT SHARK STORIES. Harper, 1978. 329 p. $12.95. Grades 8-12

Selections from 42 works dealing with shark behavior, adventures, facts; works excerpted include *JAWS, GREAT WHITE DEATH, KON-TIKI, SHARK ATTACK, THE OLD MAN AND THE SEA*; organized into sections from adventure to game fishing; each section prefaced by editors; excellent selections will be widely read by shark enthusiasts (Alamance County)

Thomas, Bill. THE COMPLETE WORLD OF KITES. Lippincott, 1977. 173 p. $12.50. $6.95 paper. Grades 9-12

Complete resource for any aspect of kites, hang gliders, ski kites; includes history, construction, flying techniques; text captures author's enthusiasm for building and handling kites; black-and-white photographs, diagrams; contains lists of contests, organizations, additional reference books

Tichy, William. POISONS: ANTIDOTES AND ANECDOTES. Sterling, 1977. 192 p. $5.69. Grades 10-12

Intriguing introduction to science of toxicology begins by tracing history of poisons, follows with a discussion of mechanisms that cause poisons to work; descriptions of common, exotic poisons and their antidotes; this book should be most valuable to shelves of high schools, professional libraries (Cumberland County)

Unkelbach, Kurt. BEST-OF-BREEDS GUIDE FOR YOUNG DOG LOVERS. Putnam, 1978. 191 p. $7.95. Grades 10-12

Contains description of 38 major breeds of dogs with considerable direction for care, training of pet dogs; abundance of information provided in interesting style; scattered black-and-white photographs, but few illustrations that may interest students; appended glossary, index; most useful to dog lovers, adult dog owners; recommended for inclusion in expanded collections (Alamance County)

Unkelbach, Kurt. HOW TO TEACH AN OLD DOG NEW TRICKS: RETRAINING THE SECONDHAND DOG. Dodd, 1979. 144 p. $6.95. Grades 9-12

Offers helpful guidance on obedience training for "used," previously owned dogs; copious information on common canine behavior problems, suggestions for corrective measures; undesirable behavior patterns include indiscriminate piddling, mounting, sniffing and licking, fighting, chasing cars; high-interest materials for sophisticated readers; second purchase recommendation for full collections (Alamance County)

Van Soelen, Philip. CRICKET IN THE GRASS AND OTHER STORIES. Sierra/Scribners, 1979. 128 p. $9.95. Grades K-4

Five subtly connected picture stories artistically depict plants and animals, their adaptations and interdependence in five separate ecosystems: grassland, oak log, field, stream, salt-water marsh; appended information for teacher/parent about each story gives enlightening explanations which may be necessary for some readers; graphic line drawings stimulate reader response; useful for studies of ecology, food chains, wildlife conservation (Wake County)

Van Wormer, Joe. SQUIRRELS. Dutton, 1978. 58 p. $6.95. Grades 3-6

Superb text relates habits of various members of squirrel family; realistic presentation covers such topics as squirrels' eating habits, nesting, hibernation, physical characteristics, reaction to man; numerous text references to color are not reinforced by black-and-white photographs; however, pictures are adorable, well-captioned shots; manageable print size, succinct index; suitable for small group, individual study, enrichment (Wake County)

Vasiliu, Mircea. A DAY AT THE BEACH. Random, 1977. unp. $3.99. $.95 paper. Grades 1-4

During narrator's family trip to beach, reader observes and learns about ocean, beach, sea animals; close-up views of such beach activities as digging for clams, watching fish, playing with seaweed, collecting treasures; full-page color illustrations show labeled pictures of various shells, birds, plants; interesting scientific facts woven unobtrusively into text; attractive cover, subject matter will draw and hold reader's attention; for group or individual instruction, enrichment (Camp Lejeune)

Veglahn, Nancy. THE MYSTERIOUS RAYS: MARIE CURIE'S WORLD. Coward, 1977. 62 p. $4.99. Grades 4-6

Straightforward account of Marie and Pierre Curie's discovery of radium; Marie Curie was attempting two seemingly impossible tasks: to receive a Doctorate in Physical Science from University of Paris (something no woman had done before) and to isolate radium; Madame Curie and her husband worked together to isolate this element, but little did they realize that working with radioactive elements would cause illness; appropriate pencil drawings illustrate this inspiring story; periodic table of elements, glossary, bibliography provide easy reference (Camp Lejeune)

Victor, Joan Berg. TARANTULAS. Dodd, 1979. 48 p. $5.95. Grades 2-4

Objective account about North American tarantula defines them as primitive spiders, as opposed to such true spiders as the black widow; notes anatomical parts, silk usage, senses, homes, food, molting, mating; appropriate language, concrete examples, list of interesting facts, index encourage individual use (Wake County)

Walker, Michael J. MIGRATING ANIMALS: NORTH AMERICA'S WILD TRAVELERS. McKay, 1979. 120 p. $7.95. Grades 7-12

Excellent account of specific migrating habits of 31 animals, including palolo marine worm, insects, fish, birds, mammals; informative, interesting text highlighted by numerous black-and-white photographs; good for students in biology or with special interest in animal behavior (Alamance County)

Walther, Tom. A SPIDER MIGHT. Sierra/Scribners, 1978. 144 p. $7.95. $4.95 paper. Grades 3-6

Many spider facts revealed by answers to questions which are posed in terms of human abilities and in poetic form--e.g., "Do you think/you would have the strength/to leap 20 times your body's length?"; answers give spider information in simple vocabulary, straightforward format; every other page contains detailed line drawings; other valuable sections discuss spider parts, poisonous spiders, other spider books; useful for research, stimulating creative writing

Wanhala, Julie M. YOU CAN GROW TOMATOES. Childrens, 1979. 48 p. $5.95. Grades 3-6

Provides instructions for planting, growing both regular and cherry tomatoes from seed; includes information on planting of seeds, transplanting, possible planters, preparation of garden soil, plant protection, pests; illustrated with color drawings; contains helpful glossary; appropriate for class or individual use (Wilkes County)

Watson, Jane Werner. WHALES. Golden Pr., 1978. unp. $2.97. Grades K-4

Introduces different kinds of whales, including dolphins, porpoises; describes environment, size, appearance, feeding habits; realistic, colorful illustrations accompanied by half-page, or less, descriptive commentary

Weber, William J. WILD ORPHAN BABIES: MAMMALS AND BIRDS. CARING FOR THEM, SETTING THEM FREE. 2nd ed. Holt, 1978. 159 p. $6.95. Grades 6-12

Slightly revised edition of this basic manual for caring for wildlife babies, both mammals and birds; includes recommendations for feeding, housing, handling, caring for sick and injured and for returning them to the wild; veterinarian author has had years of experience with wild animals, with giving advice to young people; illustrated with black-and-white photographs, drawings; easy to read and understand (Wilkes County)

Weeks, Morris. THE LAST WILD HORSE. Houghton, 1977. 144 p. $6.95. Grades 7-12

Warm, loving, historical overview of the last wild horse--his evolution, discovery, attempts to save him from extinction; named after Russian explorer who discovered them, these Przhevalsky horses avoided domestication by moving further and further from man into remote regions of Central Asia; smaller, stockier than familiar types, these horses have been successfully reared in zoos, especially in Prague, in order to prevent their extinction; black-and-white photographs, interspersed throughout text, show this last wild species of horse; conversational style in large print

Wegen, Ron. WHERE CAN THE ANIMALS GO? Greenwillow, 1978. unp. $6.43. Grades K-3

Sparse text, striking illustrations graphically portray plight of birds and such large mammals as elephant, rhinoceros, giraffe, leopard, lion, hippopotamus, zebra; man's encroachment on animals' African grassland domain depicted in unusual illustrations which show dead rhinoceros beside railroad track, pollution beside aquatic birds, giraffes' walking between telephone power lines, ensnared leopard, elephant trophy; convincing wildlife conservation lesson will arouse sensitive emotions of beginning readers; probably best used in read-aloud, discussion sessions; preview before use (Wake County)

Weiss, Harvey. WHAT HOLDS IT TOGETHER? Little, 1977. 48 p. $6.95. Grades 3-6

Cleverly illustrated text explains some of the many devices, forces useful to keep things together: nails, screws, bolts, rivets, glues, magnets, gravity, rope, string, threads, melting, interlocking construction; while mortar is omitted, sewing is not; appropriate, accurate content includes many experiments for reader to perform; the fact that no point is belabored should hold reader's attention (Shelby City)

White, William, Jr. THE AMERICAN CHAMELEON. Sterling, 1977. 80 p. $5.89. Grades 5-10

Methodically describes behavior, care, life cycle of American chameleon or anole; primary focus is labeled micro-photographs of internal anatomy: vertical section of heart, liver, spinal cord, eye; other black-and-white illustrations of skull, muscles, stomach, lungs, heart; photographs, on nearly every page, would be more effective in color or lighter in order to show more detail; contains information not usually found in other books

White, William, Jr. EDGE OF THE OCEAN. Sterling, 1977. 80 p. $5.89. Grades 5-10

Superb introduction to world at edge of sea; author explains each idea concisely, illustrates important points with exceptional black-and-white photographs, diagrams; begins with estuaries, moves on to cover beach structure, life forms; latter portions cover tides, currents, waves, cycles of life, life forms in ocean; numerous illustrations, clear print, attractive color binding, detailed index will encourage selection (Cumberland County)

White, William, Jr., and Sara Jane White. A MOSQUITO IS BORN. Sterling, 1978. 80 p. $5.89. Grades 5-10

Terse discussion of mosquitoes' physical qualities, life history, communicative diseases; clearly written prose accompanied by appropriate, clear black-and-white photographs, diagrams; practical source for student report, teacher reference (Wake County)

Whitney, Alex. THE TIGER THAT BARKS: THE TRUE PICTURE STORY OF MOHAN AND HIS FRIENDS. 51 p. $6.95. Grades 1-4

Biographical account of Mohan the tiger from the time he is rejected by his mother, adopted by McMillan family until he joins David McMillan's wild animal show; story centers on loving relationship between David's young son Brian, a German Shepherd named Zeke, Mohan the tiger cub; kindness to animals, humane treatment of wild animals in captivity intimated; clear, sensitive black-and-white photographs chronicle Mohan's development; easy-to-read text, informal style, eye-catching photographs will attract, excite young readers; for enrichment (Wake County)

Wood, Gerald L. ANIMAL FACTS AND FEATS: ONE OF THE GUINNESS FAMILY OF BOOKS. Sterling, 1977. 256 p. $14.95. Grades 7-12

Facts about recorded extremes of animal characteristics detailed in sections arranged by animal classes (mammals, insects, others); one section focuses on extinct animals; technically accurate, easily read text with many black-and-white color photographs; excellent index for quick, specific references

Zallinger, Peter. DINOSAURS. Random, 1977. unp. $3.99. $.95 paper. Grades 1-3

Excellent introduction to dinosaurs; brief descriptive passages provide facts of specific interest to young readers; pronunciation given for each group; full-page, clearly detailed illustrations; usable for reference, leisure reading (Camp Lejeune)

Zim, Herbert S. CAVES AND LIFE. Morrow, 1978. 64 p. $5.71. Grades 4-6

Large amount of information about caves--formation, types, plants and animals that inhabit caves, prehistoric cave dwellers; lucid, easily comprehended style; accurate scientific information; abundant illustrations, including some maps and graphs; good science reader (Wake County)

Zim, Herbert S. LITTLE CATS. Morrow, 1978. 64 p. $5.49. Grades 2-5

Geographical, historical, scientific information about eleven cat types--large, small, wild, domesticated; last half of book focuses on domestics; abundant, accurate, clear black-and-white illustrations; elementary reference source (Wake County)

## Books in a Series

ANIMALS OF THE WORLD. Raintree, 1977. each 59 p. each $6.51. all $39.10. Grades 3-7
TITLES: CHIMPANZEES; ELEPHANTS; KANGAROOS; LIONS; PENGUINS; ZEBRAS

Picturesque series takes readers on safari-like venture which vividly describes life of each kind of animal in simple language, illustrated by multi-colored closeup photographs; examines animals' habitats, food, predators while discussing courtship, mating, nourishment and care of young; also alludes to animals' relation to man, elementary ecology principles; easily understood glossary, list of further readings, clear-cut index provided in each book

Benson, Barbara. Adapted from the Dutch of Francis Brewer. THE POLE STAR ANIMAL SERIES. Merrill, 1977, 1978. each unp. each $1.10 paper. all $9. Grades K-3
TITLES: THE BEAVER; THE CAMEL; THE ELEPHANT; THE FOX; THE LEOPARD; THE PENGUIN; THE POLAR BEAR; THE RHINOCEROS

"Printed in the Netherlands" says a great deal about reproduction quality of illustrations which make up this series: lovely watercolors from several artists will nurture visual education of youngsters; realistic visual clues to context are easily verified by flipping to inside covers to check diagrams of each picture for names of plants, trees, animals shown; maps graph geographic range of each animal; while animal is given a name and factual details are embedded in fictional narrative, a separate list of facts about each animal is on back page

Daly, Kathleen N. GOLDEN LOOK-LOOK BOOKS. Golden Pr., 1977. each unp. each $3.30. Grades K-4
TITLES: DINOSAURS; HIDE AND DEFEND; TODAY'S BIGGEST ANIMALS; UNUSUAL ANIMALS

Brilliant colors dominate these graphically illustrated books which cover such popular topics as ancient dinosaurs, various ways animals protect themselves, gigantic animals which inhabit earth today, characteristics of peculiar animals;

GOLDEN LOOK-LOOK BOOKS. (Cont'd.)

short sentences, which make up brief, simple paragraphs, present interesting facts in bold print; vivid color binding will certainly attract young readers; for individuals, small groups, introductions to animal unit (Alexander County, Caldwell County)

Gilleo, Alma. FROM THE BEGINNING SERIES. Childrens, 1977. each 32 p. each $5.50.
Grades K-3
TITLES: AIR TRAVEL; DINOSAURS AND OTHER REPTILES; LAND TRAVEL

Series of simple, but generally informative books; each covers a single topic, providing a broad introduction; few dates or statistics included; additional sources necessary for specific facts; easy-to-read text will supply young readers with information correlating with social science and science (Caldwell County)

HOBBIES FOR EVERYONE. Childrens, 1979. Grades 4-8
Freeman, Tony. AN INTRODUCTION TO RADIO-CONTROLLED SAILPLANES. 47 p. $5.95
McComas, Tom, and James Tuohy. COLLECTING TOY TRAINS. 61 p. $6.95

Excellent color photographs on nearly every page will attract both expert and novice; texts, geared to less knowledgeable reader, stress procedures for launching these hobbies; stimulating books for classroom or library (Wake County)

McGRAW-HILL NEW BIOLOGY SERIES. McGraw, 1977, 1978. each 48 p. each $6.95.
Grades 6-9
Catchpole, Clive. BIRDS OF PREY THAT HUNT BY DAY
Catchpole, Clive. OWLS
Cloudsley-Thompson, J. L. CROCODILES AND ALLIGATORS
Vevers, Gwynne. OCTOPUS, CUTTLEFISH AND SQUID

Each title filled with facts; accurate descriptions of physical characteristics, habitats, mating, life styles; scientific terms simply defined, supported with full-color, finely detailed illustrations on almost every page (Caldwell County, Camp Lejeune)

Morris, Dean. READ ABOUT ANIMALS (14 titles). Described on Reading Advisory List

Overbeck, Cynthia. EARLY NATURE PICTURE BOOKS. Lerner Pubns., 1978. each 32 p.
each $3.95. Grades 2-4
TITLES: THE BUTTERFLY BOOK; THE FISH BOOK

Territory, coloration, other unique or identifiable characteristics presented in concise, single-page descriptions of twelve tropical fish and ten butterflies; each page of text faced with full-page, brightly colored example of specific specimen; butterflies introduced with explanation of monarch's metamorphosis; useful resource books for individual or small group study (Wake County)

Selsam, Millicent E., and Joyce Hunt. A FIRST LOOK AT...SERIES. Walker & Co.
each 32 p. Grades 1-3
A FIRST LOOK AT ANIMALS WITH BACKBONES. 1978. $6.85
A FIRST LOOK AT FLOWERS. 1977. $6.85
A FIRST LOOK AT MONKEYS AND APES. 1979. $7.85
A FIRST LOOK AT THE WORLD OF PLANTS. 1978. $5.85

Basic scientific information presented on elementary level; orderly arrangement of specific details encourages reader to observe carefully, thus building knowledge in gradual steps; minimal, precisely worded text accompanies accurately drawn black-and-white illustrations; pronunciation guides where needed (Wake County, Camp Lejeune)

Steinberg, Phil. YOU AND YOUR PET BOOKS. Lerner Pubns., 1978, 1979. each 55-65 p. each $5.95. all $41.65. Grades 4-6
Titles: AQUARIUM PETS; BIRDS; CATS; DOGS; HORSES; RODENTS AND RABBITS; TERRARIUM PETS

Detailed descriptions of each pet in terms of anatomy, feeding, health care, breeding; good source of information for potential pet owners; more thorough treatments may be preferable for owners of specific pets--particularly cats, dogs, horses; colorful covers, black-and-white illustrations (Wake County)

Wade, Harlan. A BOOK ABOUT (16 titles). Described on Reading Advisory List

WONDER BOOKS. Dodd. each $5.95. Grades 5-10
Blassingame, Wyatt. WONDERS OF CROWS. 1979. 96 p.
Brown, Anne Ensign. WONDERS OF SEA HORSES. 1979. 64 p.
Jacobson, Morris K., and David R. Franz WONDERS OF CORALS AND CORAL REEFS. 1979. 80 p.
Jacobson, Morris K., and David R. Franz. WONDERS OF JELLYFISH. 1978. 80 p.
Lavine, Sigmund A., and Vincent Scuro. WONDERS OF DONKEYS. 1978. 64 p.
Lavine, Sigmund A. WONDERS OF MARSUPIALS. 1978. 80 p.
Lavine, Sigmund A. WONDERS OF TERRARIUMS. 1977. 96 p.
Perry, Roger. WONDERS OF LLAMAS. 1977. 96 p.
Schreiber, Elizabeth Anne. WONDERS OF TERNS. 1978. 64 p.
*See publisher's literature for other titles in series.*

High-interest, resourceful collection presents a wealth of facts, information in organized, pragmatic fashion; coverage includes such notable topics as crows' antics, pet sea horses, inhabitants of coral reefs, marsupial folklore, donkey ball, historical overview of llamas' role in ancient civilizations; matter-of-fact style enlivened by occasional anecdotes, rhetorical questions, provocative quotations, sharp black-and-white photographs, drawings; varying levels of sophistication make this series versatile; some books contain glossary, bibliography, detailed index, while others are solely for enjoyment, enrichment

## BOOKS (FOR TEACHER USE)

Coble, Charles R., et al. MAINSTREAMING SCIENCE AND MATHEMATICS: SPECIAL IDEAS AND ACTIVITIES FOR THE WHOLE CLASS. Goodyear, 1977. 123 p. $8.95

Varied teaching activities organized in two parts--science and mathematics; explains both objectives and necessary teacher preparation for implementing 180 activities in both science and math; for each week, the general overview and learning objectives are stated; reasonably comprehensive, activities cover beginning number ideas, computation, geometry, telling time, measurement, mathematics for the consumer; opportune resource for teachers who want to use an activity approach to teaching science and math in grades 3-9

## BOOKS (REFERENCE)

Bianchini, Francesco, and Francesco Corbetta. HEALTH PLANTS OF THE WORLD: ATLAS OF MEDICINAL PLANTS. Newsweek, 1977. (Available from Purnell.) 242 p. $13.95. Grades 10-12

Described on Fall 1978 Reference Books Advisory List

Heberer, Gerhard, and Herbert Wendt, eds. GRZIMEK'S ENCYCLOPEDIA OF EVOLUTION. Van Nostrand, 1976. 560 p. $39.50. Grades 10-12

Described on Fall 1978 Reference Books Advisory List

Hurlbut, Cornelius S., Jr., ed. THE PLANET WE LIVE ON: AN ILLUSTRATED ENCYCLOPEDIA OF THE EARTH SCIENCES. Abrams, 1976. 527 p. $37.50. Grades 8-12

Described on Fall 1978 Reference Books Advisory List

THE NEW BOOK OF POPULAR SCIENCE. 6 v. Described on Reference Books Advisory List

THE RAINTREE ILLUSTRATED SCIENCE ENCYCLOPEDIA. 20 v. Described on Reference Books Advisory List

THE WORLD'S WILD PLACES. Time-Life, 1974-1977. (Available from Silver Burdett.) each 184 p. each $8.97. Grades 10-12
Titles: AFRICA'S RIFT VALLEY; THE AUSTRALIAN OUTBACK; THE GREAT BARRIER REEF; LABRADOR; THE SAHARA; WILDERNESS EUROPE

Described on Fall 1978 Reference Books Advisory List

## BOOKS (SUPPLEMENTARY TEXTS)

Blaustein, Elliott, et al. PATHWAYS: INSIGHTS INTO SCIENCE. Globe, 1977. 310 p. $9.20. $7.60 paper. Grades 9-10

Easy-to-read general science text, with basic concepts further explained and simplified in illustrative diagrams and photos; concepts include electricity, atoms, living things, senses, weather, and space; text provides pronunciation guides for technical words; color titles in bold print key students to anticipate main ideas; color-highlighted items outline major ideas for study in each chapter; chapters end with follow-up activities and reviews to help students assess their understanding and to reinforce science concepts; some hands-on activities also listed; very good paper quality, print appearance, and color illustrations (Camp Lejeune)

Oxenhorn, Joseph M. ENERGY AND OUR FUTURE. Globe, 1979. 214 p. $4.88 paper. Grades 9-10

Brief overview of energy, availability of energy sources through modern technology; organized into five units: energy and world of work, fossil fuel, natural forces of fuels, future energy systems, energy and society; each unit has numerous questions, suggested activities; short, self-learning chapters may be used for individual study or as resource book for beginning energy studies; many black-and-white drawings, photographs, diagrams (Alamance County)

## BOOKS (WORKBOOKS)

### Books (Workbooks) in a Series

Benz, Herbert, and John Hodgens. GENERAL CHEMISTRY: A LABORATORY APPROACH. Amidon. 3 workbooks $4.95. each $1.75. 40 transparencies $24.50. teacher's guide $8.50. Grades 10-12
Module I: UNIT 1, REGULARITIES. UNIT 2, STRUCTURE OF MATTER
Module II: UNIT 3, PROPERTIES OF GASES. UNIT 4, PROPERTIES OF MIXTURES
Module III: UNIT 4, ENERGY EFFECTS, RATES OF REACTION, AND EQUILIBRIUM
UNIT 6, ACIDS AND BASES: OXIDATION AND REDUCTION

Consumable workbook/text introduces chemistry by emphasizing laboratory activities; well-organized lessons mesh student text with teacher's guide for total instructional unit; looseleaf guide provides complete lesson plan for laboratory sessions, including objectives, needed equipment, useful supplemental data, evaluating sheets; student text heavily illustrated with diagrams, charts, graphs

Gottlieb, Joan S. THE WONDERS OF SCIENCE. Steck, 1977. each 136 p. each $2.25. teacher's editions each $2.25. Grades 7-12
Titles: THE HUMAN BODY; WATER LIFE; THE EARTH AND BEYOND; LAND ANIMALS; MATTER, MOTION, AND MACHINES

Series designed for mainstreamed students or those with severe reading difficulties; broad topics subdivided into manageable units of two to five paragraphs, followed by independent workbook assignments which emphasize development of needed language skills; appropriate as primary text, if teacher selects units from individual books to coordinate with classwork; excellent suggestions in teacher's edition for working with special students (Alamance County)

SCIENCE FOR YOU. Steck, 1979. 6 workbooks each $2.10. teacher's editions each $2.10. Grades 1-6

YOU CAN SEE. 96 p.
YOU CAN DO. 96 p.
YOU CAN LEARN. 112 p.
YOU CAN EXPLORE. 94 p.
YOU CAN DISCOVER. 94 p.
YOU CAN EXPERIENCE. 94 p.

Workbooks designed for first through sixth grade students whose reading level is below their grade level; can also be used by older students in need of special materials, though illustrations in YOU CAN SEE and YOU CAN DO are geared to primary students; areas covered are measurement, energy, astronomy, earth studies, plants, animals, ecology; scope and sequence charts in teacher's editions facilitate individual assignments using all six books; suggestions given for using program with special students (Wilkes County)

## CALENDARS

### CALENDAR (FOR TEACHER USE)

SCIENCE FUN EVERY DAY IN EVERY WAY: A TOTAL ENRICHMENT PERPETUAL CALENDAR. Acropolis, 1977. spiral bound, 11" x 17". 38 p. $9.50 paper

Many usable ideas for activity centers, structured discussions, informal talks appropriate for grades K through 6; important historical events recorded (minority contributors included, but not so identified); commemorative postage stamps pictured; adaptable for all elementary groups; days of the week are not identified, so calendar can be reused

## DUPLICATING MASTERS

ENRICHMENT ROUSERS. Ideal, 1977, 1978. 4 books each containing 24 duplicating masters each $6.25. Grades 7-12
Titles: THE ANIMAL KINGDOM; GEOLOGY AND OCEANOGRAPHY; LIVING THINGS AND PLANTS; PHYSICAL SCIENCE: LIGHT, SOUND, MACHINES AND ENERGY

Enrichment activities to reinforce classroom instruction include crosswords, fill-ins, mazes, word hunts, riddles; non-duplicating answers printed on masters (Wilkes County)

## FILMS (16MM)

BEES! BACKYARD SCIENCE (Revised). BFA, 1978. 16mm. 13 min. sd. guide color $220. Grades 2-5

Laudable introduction to one group of common backyard insects; narration introduces viewer to the bee, looking at its individual structure, way bees gather nectar and transfer pollen, construction and social structure of a hive, reproduction and developmental cycle of bees; superb in execution and technical quality (Cumberland County)

BIRDS. Natl. Geog., 1978. 16mm. 12 min. sd. guide color $150. Grades 4-10

Inviting, detailed presentation of exotic, common birds from around world; discusses such special characteristics as habitat, territory establishment, courtship behavior, care of young, means of obtaining food, methods of protection, use of tools; shows and explains features that enable birds to fly--special adaptation of bill, feet, wings; also indicates man's placement of birds in his culture, religious rites; ideal for small, large group instruction of in-depth bird studies

THE BOUNDLESS SEAS. W.A.V.E., 1978. 2 reels 16mm. 50 min. sd. guide color $282. Grades 6-12

Basically reviews ocean's importance in our lives, futures, continued well-being; begins with excellent outer space animation, depicting formation of earth, subsequent formation of oceans; topics covered include continental drift, ocean mining, oil exploration, symbiotic relationships, unusual sea creatures; well-structured mixture of ideas progresses naturally, enabling usability in two class periods without loss of continuity; reliance on file footage, Encyclopaedia Brittanica film, footage from numerous educational films occasionally results in contrasting or grainy film, but effect is not objectionable; likable narrator ties film together with on-camera appearances; if there is one flaw, it is the lack of emphasis on sea's delicacy, relationship with man--a sorely needed point for impressionable youngsters; with emphasis on mining, oil exploration, exploitation of sea, not mentioning conservation is major weakness

COLOR: A FIRST FILM. BFA, 1979. 16mm. 13 min. sd. guide color $220. Grades 4-7

Instructive, appealing introduction to aspects of color; explains role light plays in carrying color messages, use of spectrum to separate light into different colors; demonstrations with colored beams of light and paint reveal what new color a certain mixture will display; bright, well-composed photography; clear, distinct narration; for introduction to science unit on color or for beginning artist

CONSERVING OUR NATURAL RESOURCES (Revised). BFA, 1979. 16mm. 15 min. sd. guide color $250. Grades 6-12

Informative and attractive overview of how both industries and individuals can conserve natural resources by turning to such alternatives as recycling, fuel utilization; examples of cited resources include forest, soil, water, metal, those for which substitutions are being sought; attached guide sheet contains synopsis, concepts covered, discussion questions, vocabulary

ENERGY: A NATIONAL ISSUE. Aims, 1977. 16mm. 27 min. sd. guide color $395. Grades 5-12

Animated with Hanna-Barbera Flintstone characters, narrated by Charlton Heston, this humorously depressing film warns students that there is a decreasing amount of energy, an increasing worldwide demand; provides no clear suggestions as to how this problem might be solved, but does emphasize the importance of saving where we can in order to gain more time for research; recommended for teachers who want brief history of the development of present, gloomy energy situation in United States

ELEMENTARY NATURAL SCIENCE: THE GRAY SQUIRREL'S NEIGHBORHOOD. Centron, 1978. 11 min. sd. guide color $175. Grades 4-8

Richly presents life cycle of eastern gray squirrel, how North Carolina's state mammal, in instructive, entertaining manner; briefly covers squirrels' way of food-getting, mating, caring for young and gives directions for attracting squirrels to yard; describes members of community--deer, white-footed mouse, opossum, fish, birds; excellent vehicle for displaying ecological relationships

ENERGY: THE FACTS...THE FEARS...THE FUTURE. BFA, 1977. 2 reels 16mm. 55 min. sd. guides color $715. Grades 8-12

Excellent coverage of problems and possibilities in energy field; natural gas, oil, coal, solar energy, nuclear power, biomass and geothermal power are discussed in terms of use and potential shortages; film also provides a look at conservation measures for industry and individuals; throughout this news documentary, the presentation is balanced, conservative in its approach (Cumberland County)

GRASSLANDS OF THE WORLD. BFA, 1978. 16mm. 14 min. sd. guide color $235. Grades 6-9

Studies ecology of world's grasslands in South America (pampas), North America (prairie), Russia (steppes), Africa (belt), and Australia (outback) with obvious emphasis on climatic characteristics, animal-plant-bird life indigenous to region; vivid color, high-interest film; especially entertaining sections on animal life; accompanying guide gives synopsis, discussion questions (Wake County)

HYDROPONIC GARDENING. Handel, 1978. 16mm. 16 min. sd. guide color $250. Grades 7-12

Although situation created to communicate information is contrived, film is effective; basic information about hydroponics given at the beginning; then teenage character begins his own hydroponic project; production turns into an impressive "nuts-and-bolts" presentation on how to grow tomatoes; shows progress of the plants, indicates procedure to be followed; will motivate viewers to try this method

LOOK AT ZOOS. Natl. Geog., 1978. 16mm. 12 min. sd. guide color $150. Grades 4-10

Pleasantly, authentically provides unfamiliar insights into purpose, operation of zoo: as a place to keep animals in public view, maintain and increase endangered species, provide natural laboratory for study; also explains special health considerations, available careers in zoo; features zoos from all over world, including special zoo for insects; ideal for small, large group as introduction, summary; teacher's guide included

THE MICROSCOPE: PASSPORT TO THE MINIWORLD. Handel, 1979. 16mm. 15 min. sd. guide color $250. Grades 7-10

Attractive, informative presentation on light microscope--its various usages, component parts and their functions; closeup views, using specimen, provide demonstration for every description; practically reinforces necessary care, use of microscope; helpful for life science, biology courses

OIL AND ITS PRODUCTS. BFA, 1979. 16mm. 14 min. sd. guide color $240. Grades 7-12

Unsophisticated discussion of story of oil; clearly describes oil formation, discovery, method of extraction from earth, its increasing versatility in form of products ranging from gasoline to medicine; reaches conclusion that oil supply is finite, asserts that energy shortage crisis will be met with vigor, leading to technological breakthroughs that will supply alternative sources; viewer is left with question, "What would we do without oil?"; excellent photography, diagrams aid viewer's interpretation of narration; useful introduction to study of oil, hydrocarbons, petroleum products

OXYGEN: AN INTRODUCTION TO CHEMISTRY. Barr, 1978. 16mm. 15 min. sd. guide color $240. Grades 7-11

Effectively uses oxygen to introduce the basic principles, concepts, vocabulary of chemistry: atoms, electrons, molecules; abundance of oxygen is indicated by its percentage in the human body and in the air; colorful illustrations depict chemical

OXYGEN: AN INTRODUCTION TO CHEMISTRY. (Cont'd.)

reactions, importance of energy; accompanying guide provides vocabulary, concepts explained in film, suggested questions and activities

THE REALM OF BIRDS. Natl. Geog., 1978. 16mm. 25 min. sd. poster guides color $350. Grades 7-10

Excellent discussion, depiction of birds' evolution and development; special adaptation of bills, feet, wings have allowed them to explore practically all of nature; courtship rituals, defense mechanisms, care of young, methods of studying migratory habits are presented; colorful, attractive exhibition of birds from many parts of world an additional bonus

A SAND COUNTY ALMANAC. BFA, 1979. 16mm 16 min. sd. guide color $265. Grades 10-12

Open-ended study of our natural surroundings, pointing out aesthetic values of nature, alluding to pleasures available to us if we take time to study nature and its effect upon us; drawn from Aldo Leopold's poetic descriptions of the natural environment all over America, but especially his "Sand County" farm in Wisconsin; suitable for senior high school classes in conservation and ecology; as much for English classes as science--very Thoreauvian

SHARKS: SOME FACTS. BFA, 1978. 16mm. 17 min. sd. guide color $280. Grades 7-10

Clarifies some misconceptions about sharks; shows how scientists are studying their behavior to determine which ones are dangerous to man; facts about how sharks react to normal and aggressive behavior of man; shows scientists' observing prehistoric sharks' teeth, methods of reconstructing fossils' form and shape; gives detailed description of shark's use of its teeth, habitats of various species; good for in-depth study of sharks; teacher's guide contains synopsis, discussion questions

SNAILS: BACKYARD SCIENCE (Revised). BFA, 1979. 16mm. 12 min. sd. guide color $205. Grades K-7

Colorful, authentic portrait of the snail family; includes vividly detailed descriptions of snail's parts and functions, protective devices and reactions, habitat and relatives; also explained is the slug--its growth, movement, means of getting food, methods of breathing, reproduction; extensive use of observational skills makes this film useful for large group study; synopsis, discussion questions, vocabulary provided in guide

TECHNOLOGY AND VALUES: THE ENERGY CONNECTION. Barr, 1979. 16mm. 19 min. sd. guide color $320. Grades 5-12

Valuable, entertaining cartoon presentation discussing history of man's use of energy; links this energy consumption with economic gain, thereby suggesting that greed has motivated overuse of energy and environmental pollution; emphasis on fossil fuel consumption, with reference to expanding population; suggestions for solving this dilemma concentrate on need for value changes, recognition of limited energy sources; accompanying guide provides summary, stimulating discussion questions; excellent choice for science, social studies

THE UNIVERSE. Benchmark, 1977. 16mm. 28 min. sd. color $295. Grades 8-12

Few films combine soundness of content, excellence of production, superb creative flair that come together here; viewer is transported from molecular to galactic realm, shown overall structure, principle phenomena from life cycle of stars to structure of solar system, origin of pulsars, black holes; visual sensation, bordering on religious, that every student should experience (Cumberland County)

WATCHING ANIMALS. Natl Geog., 1978. 16mm. 12 min. sd. guide color $150. Grades 3-10

Edifying demonstration of scientific process of observing animals, thereby encouraging students to do same; illustrates special techniques, equipment used for observation without disturbing animals; relates how scientific inquiries begin with single questions, gives examples of how birds feed and care for their young, learn their songs, provides observation of otter, kangaroo, baboon; for small or large group's in-depth study; teacher's guide included

WHY DO ANIMALS LOOK LIKE THEY DO? Journal, 1978. 16mm. 11 min. sd. guide color $165. Grades 4-7

Colorful, educational presentation of how animals have survived through special adaptation to their surroundings: long legs, streamlined bodies, teeth, color; demonstrates principles by showing such animals as sea lions, birds, animals, fish; accompanying guide gives synopsis, activities, discussion questions; excellent introduction or summary for life science students in small or large groups

WINDOW TO THE UNIVERSE. Moody, 1977. 16mm. 15 min. sd. guide color $250. Grades 8-12

Excellent basic introduction to science of radio astronomy; includes history of this science's development, basics of radio telescope, descriptions of radiogalaxies, pulsars, and quasars; photography, graphics are to the point, clearly illustrate each idea; almost continual commentary throughout film allows little time for viewer to absorb visual images (Cumberland County)

## FILMSTRIPS (SOUND)

### Filmstrips (Sound) in a Series

THE BEST OF NOVA: FRONTIERS OF CHANGE. Media Basics, 1979. 3 color filmstrips, 3 cassette tapes, 1 correlated paperback FUTURE SHOCK, 1 study guide $84.95. Grades 9-12

Titles: SPACE: THE FINAL FRONTIER; DAWN OF THE SOLAR AGE; LASER: LIGHT OF THE 21st CENTURY

Highlights of three NOVA programs; SPACE: THE FINAL FRONTIER deals with the future for commercial and industrial use of space with special attention to role of the space shuttle; DAWN OF THE SOLAR AGE discusses many energy sources and special role of solar energy; LASER: LIGHT OF THE 21st CENTURY traces development, present and future uses of this new tool; excellent substitute if complete program not available; study guide with synopses, vocabulary lists, discussion suggestions; copy of Toffler's FUTURE SHOCK included (Alamance County)

DISCOVERING THE POWERS OF NATURE. Natl. Geog., 1977. 3 color filmstrips, 3 cassette tapes, guides $50. Grades K-12

Titles: WEATHER AND PEOPLE; FOREST FIRES AND FLOODS; EARTHQUAKES AND VOLCANOES

Shows recurring elements in nature that man needs to understand, predict, take precautionary measures against; focuses on how each potentially dangerous element occurs and changes it causes; points out desirable outcomes of these forces, such as meadows' growing after a forest fire, lakes' forming in volcanic craters; includes advancements man has made toward predicting forces of nature and controlling his environment; vivid photography of California earthquake evacuation teams, snowstorm "blaster" equipment blowing snow, Volkswagen caught in rushing flood water; could be used as is for elementary grades, photographs only for upper grades (Caldwell County)

ELECTRICITY. BFA, 1977. 4 color filmstrips, 4 cassette tapes, guide $70. with disc recordings $70. Grades 6-9
Titles: STATIC ELECTRICITY; ELECTRIC CURRENT; SOURCES OF ELECTRICITY; USING ELECTRICITY

Lucidly describes, illustrates what electricity is, where it comes from, what it does; explains in detailed, understandable language the different types of electricity, how electricity is converted into light, heat, mechanical, sound energy, and how we use these types of energy in our daily lives; top-quality sound, vivid pictures of common objects--e.g., garden hose, teakettle, magnet; enough repetition in each filmstrip so that basic principles could be understood without viewing entire set; teaching guide contains synopses, concepts, vocabulary, discussion questions for each lesson (Caldwell County)

ENERGY AND EVERYDAY LIFE. Natl. Geog., 1978. 3 color filmstrips, 3 cassette tapes, guides $50. Grades 4-9
Titles: SUN, WIND, AND WATER; ENERGY FROM THE EARTH; SAVING ENERGY

Emphasizing conservation of diminishing supply of fossil fuels, this set would serve as introduction or summary of more detailed energy study; three or four concepts often represented by single picture; brief survey of alternate energy sources devotes three frames to pros and cons of nuclear power; valuable information, good photography; guides provide objectives and script

FIRST IDEAS ABOUT ASTRONOMY. BFA, 1978. 4 color filmstrips, 4 cassette tapes, 8 activity masters, guide $70. Grades 4-6
Titles: THE NIGHT SKY; LOOKING AT STARS; WHAT STARLIGHT TELLS US; THE PLANETS

Surveys early ideas of astronomy, including history of some constellations; discusses some methods used by astronomers in determining size, temperature, distance of stars; gives excellent account of some recent finding concerning planets; illustrated with color photographs and drawings; parts of the series could be used in study of mythology; most useful for students who have been introduced to beginning concepts of astronomy; study guide with synopses, vocabulary lists, discussion questions (Alamance County)

GEOLOGY SERIES. BFA, 1977. 4 color filmstrips, 4 cassette tapes, guide $70. with disc recordings $70. Grades 3-6
Titles: THINGS THAT BUILD UP THE EARTH; THINGS THAT TEAR DOWN THE EARTH; THE WATER CYCLE; MOUNTAINS AND ROCKS

Overview of basic geology topics; each short, fast-paced, simple-to-understand filmstrip contains colorful pictures; teacher's guide has vocabulary words, discussion questions, synopses; Appalachian Mountains pointed out in MOUNTAINS AND ROCKS, but names of rocks not given; good introduction, well done, but lack quantity and depth for older students (Alexander County)

THE HUMAN BODY. Barr, 1977. 6 color filmstrips, 6 cassette tapes, guide $125. Grades 4-12
Titles: CELLS: BUILDING BLOCKS OF THE BODY; THE SKELETAL AND MUSCLE SYSTEMS; THE DIGESTIVE AND RESPIRATORY SYSTEMS; THE CIRCULATORY AND URINARY SYSTEMS; THE NERVOUS AND ENDOCRINE SYSTEMS; THE SENSE ORGANS

Presents skillfully and clearly the different systems, general make-up of the body; logical analogies and well-done illustrations provide excellent aides to understanding; teacher's guide has synopses, background information, vocabulary lists, references, activities

LIFE IN THE SEA. Natl. Geog., 1978. 2 color filmstrips, 2 cassette tapes, guides $35. Grades 1-4
Titles: LIFE NEAR THE SHORE; LIFE IN THE OPEN SEA

Excellent series of filmstrips for young viewers, introducing life forms inhabiting sandy beaches, rocky coasts, salt marshes, kelp beds, coral reefs, the open sea; emphasizes interdependence of all marine life from smallest plants to whales; extremely well produced--sound track gives feeling of "being there" through good sound effects and music; fine photographs by some of today's best marine photographers; teacher's guides contain good supplementary material not included in filmstrips, and free reprints are available; elemental approach might, despite excellent visual quality, be a bit boring to older students or those exposed to this information before; all components color coded

MORE DINOSAUR TALES. Coronet, 1978. 4 color filmstrips, 4 cassette tapes, guide $80. with disc recordings $80. Grades K-5
Titles: IGUANDODON, THE MOST FAMOUS DINOSAUR; STYRACOSAURUS AND THE DUCKBILLS; THE PTERANODONS AND THE SEA MONSTERS; TRAIL OF THE BRONTOSAURUS

Dinosaurs narrate their own entertaining stories; after Mrs. Pteranodon teaches her children how to fly, they fly over sea and tangle with sea monster; Bronto Brontosaurus and his family move to new eating grounds, tell stories of their family history; Big Spike Styracosaurus, his brother protect their home from three Duckbills; Big Brother Iguanodon wants to be brave but runs from gigantic Megalosaurus; filmstrips illustrated by clay models, paper cutouts, full-color drawings; characters' voices reminiscent of old radio shows; dinosaur-size descriptions use units children understand, "as long as a school bus, as tall as a one-story house"; at end of each tale, cast of creatures is named; printed name superimposed on film, as viewers are invited to pronounce it along with narrator; scientific facts about dinosaurs subtly incorporated into stories; guide contains many activity suggestions for art, languages, as well as science (Camp Lejeune)

READ-ALONG SCIENCE. Guidance Assocs., 1977. 3 boxes each containing 1 color filmstrip, 1 cassette tape, 4 copies of Read-Along book, 1 teacher's guide $119.70. each $49.50. Grades K-3
Titles: DINOSAURS; FOSSILS; MAMMALS OF LONG AGO

DINOSAURS uses fossil analysis to describe several different dinosaurs; FOSSILS provides a guided tour through a museum to explain fossil formation and geologic changes; MAMMALS presents descriptions, possible reasons for extinction, and present-day descendants (camel, horse, etc.) of five vanished species; student booklets duplicate filmstrip pictures, script; tape repeats script; teacher's guides have script, background information, suggested activities (Alexander County)

THE SEA LIBRARY: SEA PATTERNS, SEA CYCLES. Cypress, 1977. 6 color filmstrips, 6 cassette tapes, guide $108. Grades 4-9
Titles: WAVES, WAVES, WAVES; OCEAN CURRENTS; RHYTHM OF TIDES; THE WATER CYCLE; SEA SEASONS; EXPLORING THE OCEAN BOTTOM

Inspiring study of such patterns and cycles of the sea as waves, tides, top-bottom interchange, seasons; beautiful photography accompanied by appropriate sound effects of sea activity in various parts of the world; narration of each lesson is by a different expert--e.g., a woman lighthouse keeper, fisherman, explorer-oceanographer; teacher's guide provides synopses, explanations of concepts, vocabulary suggestions, relevant classroom projects (Camp Lejeune)

WILD ANIMAL FAMILIES. Coronet, 1978. 6 color filmstrips, 6 cassette tapes, 2 sets of duplicating masters, guide $108. with 3 disc recordings $108. Grades 1-3
Titles: OPY, THE OPOSSUM; DIGGER, THE PRAIRIE DOG; GOSSY, THE CANADA GOOSE; ROSY, THE RED FOX; MONTY, THE MOUNTAIN LION; RUSTY, THE BUFFALO

Describes life stories of six animals in family setting from birth to leaving the nest; narrator explains in chatty, storytelling manner the mother's training of young for survival, association with other animals; stories give overview but do not go into much depth; magnificent color photographs show animals in natural settings; guide correlates filmstrip with language arts, reading, as well as science activities; excellent supplement for collections needing a fully introductory animal section (Camp Lejeune)

YOUR SENSES AND HOW THEY HELP YOU. Natl. Geog., 1977. 2 color filmstrips, 2 cassette tapes, guides $35. Grades K-3
Titles: SEEING AND HEARING; TASTING, TOUCHING, SMELLING, AND OTHER SENSES

Awakens the senses of small children in easy-to-understand, interesting manner; shows familiar objects--a cat's soft fur, freshly baked bread, a violin--and relates ears, nose, and hand to senses they detect; stresses that senses protect, allow discovery of information, provide enjoyment; crisp, bright, happy photographs; well-written guides include complete script, key words (Wilkes County)

## KITS

ORGANIC LABORATORY EXPERIMENTS: TECHNIQUE OF RECRYSTALLIZATION. Prentice-Hall Media, 1978. 1 color filmstrip, 1 cassette tape, 61 color slides (2"x2"), guide $70. Grades 11-12

Demonstrates techniques of recrystallization through purifying naphthalene using ethanol as the recrystallization solvent; frame numbers repeated by narrator to insure student's following step-by-step technical process; photographs of demonstration and equipment involved; clearly labeled diagrams show chemical processes not able to be photographed; for advanced chemistry student well versed in techniques, terminology, equipment of organic chemistry; should be viewed by student before performing experiment; program study guide lists processes in each frame; slides, filmstrips have identical material (Camp Lejeune)

THE SEA LIBRARY: TO LOVE THE SEA. Cypress, 1977. 60 books (10 copies each of 6 titles), 5 color filmstrips, 5 cassette tapes, guide $162. set of 6 books (1 of each title), guide $11.95. set of 60 books (10 of each title), guide $85.50. 5 color filmstrips, 5 cassette tapes, guide $90. Grades 1-6
TO LOVE THE SEA books:
Titles: FISH OF THE CORAL REEF; FISH OF THE OPEN OCEAN; THE CORAL REEF; PLANTS OF THE OCEAN; SEABIRDS; MAMMALS OF THE OCEAN

TO LOVE THE SEA sound filmstrips;
Titles: SEA FEELINGS; OCEAN MOTION; THE WONDER OF OCEAN LIGHT AND COLOR; SONGS OF THE OCEAN; AND DOWN WE GO

Beautiful introduction to ocean ecology; superb color photography characterizes books and filmstrips; easy-to-read books introduce student to ocean life; appropriate music, realistic sound effects enhance filmstrips designed to stimulate sensory awareness; excellent teacher's guide has complete text of each book with explanatory comments; synopses, vocabulary suggestions, related activities provided for filmstrips (Camp Lejeune)

## TESTS

Diamond, Harriet, and Phyllis Dutwin. GED: HOW TO PREPARE FOR THE HIGH SCHOOL EQUIVALENCY EXAMINATION. TEST 3: THE SCIENCE TEST. Contemp. Bks. (Available from Braswell.) 218 p. $2.96 paper. answer booklets each $.25. Grades 7-12

Conceived as device for enabling students to pass science portion of GED, this book should also help improve scores on any standardized science test; after basic introduction to method of administering, format, scoring of GED, text provides pre-test which determines students' weaknesses; detailed discussion, activities related to reading skills necessary for answering test questions followed by specific explanations of proper answers; book concludes with such study aids as Periodic Table of Elements, list of scientific achievements, comprehensive glossary, final post-test with answers and explanations; thorough coverage for serious students

## ADDITIONAL FILMSTRIPS (SOUND)

### Filmstrips (Sound) in a Series

BACKYARD SCIENCE III. BFA, 1978. 4 color filmstrips, 4 cassette tapes, guide $70. with disc recordings $70. Grades K-5
Titles: INSECTS AND US; KINDS OF INSECTS; INSECT BODIES;
HOW AND WHERE INSECTS LIVE

Wide variety of common insects discussed in terms of their characteristics, behavior, structure, life habits; clear, vivid, close-up photographs, uniformly excellent throughout series, are accompanied by interesting, accurate, articulate narration; guide includes synopsis, discussion questions, vocabulary for each lesson